Lumber design values are in accordance with ANSI/TPI 1 section 6.3
These truss designs rely on lumber values established by others.

RE: Columbia_Model - Columbia Model

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:

Customer Info: Florida Homes Project Name: . Model: .
Lot/Block: . Subdivision: .
Address: ., .
City: Columbia County State: FL

Name Address and License # of Structural Engineer of Record, If there is one, for the building.

Name: License #:
Address:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

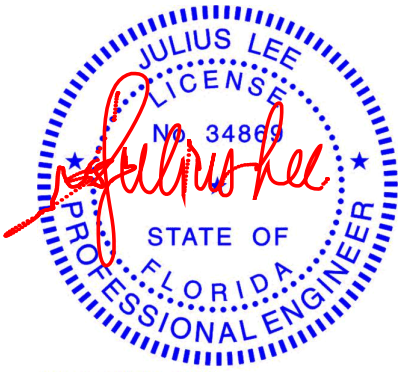
Design Code: FBC2020/TPI2014 Design Program: MiTek 20/20 8.5
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 31 individual, Truss Design Drawings and 0 Additional Drawings.
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T28890167	A01AGIR	9/29/22	23	T28890189	B05	9/29/22
2	T28890168	A01GIR	9/29/22	24	T28890190	C01GE	9/29/22
3	T28890169	A02	9/29/22	25	T28890191	C02	9/29/22
4	T28890170	A02A	9/29/22	26	T28890192	C03GIR	9/29/22
5	T28890171	A03	9/29/22	27	T28890193	CJ01	9/29/22
6	T28890172	A03A	9/29/22	28	T28890194	J1	9/29/22
7	T28890173	A04	9/29/22	29	T28890195	J2	9/29/22
8	T28890174	A04A	9/29/22	30	T28890196	J3	9/29/22
9	T28890175	A05	9/29/22	31	T28890197	J4	9/29/22
10	T28890176	A05A	9/29/22				
11	T28890177	A06	9/29/22				
12	T28890178	A06A	9/29/22				
13	T28890179	A07	9/29/22				
14	T28890180	A07A	9/29/22				
15	T28890181	A08	9/29/22				
16	T28890182	A08A	9/29/22				
17	T28890183	A09	9/29/22				
18	T28890184	A10	9/29/22				
19	T28890185	B01GE	9/29/22				
20	T28890186	B02	9/29/22				
21	T28890187	B03	9/29/22				
22	T28890188	B04	9/29/22				

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Mayo Truss Company, Inc..

Truss Design Engineer's Name: Lee, Julius
My license renewal date for the state of Florida is February 28, 2023.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A01AGIR	Hip Girder	1	2	T28890167

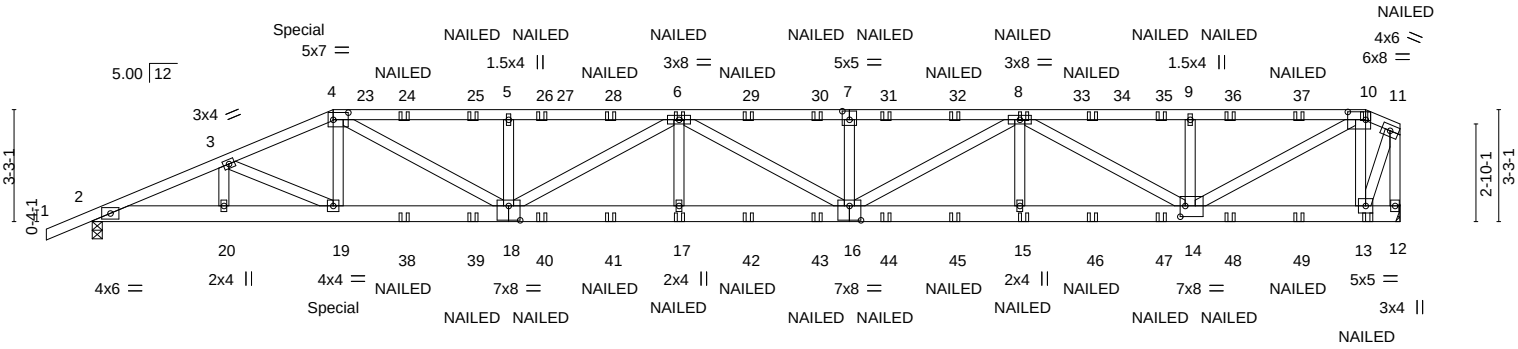
Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:31 2022 Page 1

ID:I6mhBsqQl4K6KneDQWuCZCymcPk-bprLcEXkAQ5J7_WzL3O8WbgyasKQQQW5ev?qohyYqE6

1-4-0	3-9-14	7-0-0	12-1-3	17-0-9	22-0-0	26-11-7	31-10-13	37-0-0	38-0-0
1-4-0	3-9-14	3-2-2	5-1-3	4-11-7	4-11-7	4-11-7	4-11-7	5-1-3	1-0-0

Scale = 1:66.9



3-9-14	7-0-0	12-1-3	17-0-9	22-0-0	26-11-7	31-10-13	37-0-0	38-0-0
3-9-14	3-2-2	5-1-3	4-11-7	4-11-7	4-11-7	4-11-7	5-1-3	1-0-0

Plate Offsets (X,Y)-- [4:0-5-4,0-2-8], [7:0-2-8,0-3-0], [10:0-6-4,0-2-12], [14:0-1-12,0-3-12], [16:0-4-0,0-5-0], [18:0-4-0,0-5-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.80	Vert(LL)	-0.41	16-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.85	Vert(CT)	-0.83	16-17	>546	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.14	12	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 471 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except* 4-7,7-10: 2x4 SP No.1

BOT CHORD 2x6 SP No.2 *Except* 16-18: 2x6 SP SS

WEBS 2x4 SP No.2

REACTIONS. (size) 2=0-3-8, 12=Mechanical

Max Horz 2=89(LC 24)

Max Grav 2=3152(LC 1), 12=3357(LC 1)

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-3-3 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

"Special" indicates special hanger(s) or other connection device(s) required at location(s)shown. The design/selection of such special connection device(s) is the responsibility of others. This applies to all applicable truss designs in this job.

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-7504/0, 3-4=-7415/0, 4-5=-9719/0, 5-6=-9719/0, 6-7=-10713/0, 7-8=-10713/0, 8-9=-5878/0, 9-10=-5878/0, 10-11=-1310/7, 11-12=-3375/0

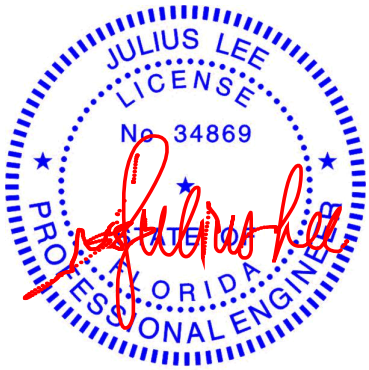
BOT CHORD 2-20=0/6902, 19-20=0/6902, 18-19=0/6863, 17-18=0/10995, 16-17=0/10995, 15-16=0/9096, 14-15=0/9096, 13-14=0/1078

WEBS 3-19=-252/151, 4-19=0/761, 4-18=-62/3318, 5-18=-621/133, 6-18=-1507/0, 6-17=0/433, 6-16=-326/0, 7-16=-497/99, 8-16=0/1869, 8-15=0/434, 8-14=-3723/0, 9-14=-631/132, 10-14=0/5513, 10-13=-2626/84, 11-13=0/3089

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=38ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 231 lb down and 127 lb up at 7-0-0 on top chord, and 361 lb down at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-4=-60, 4-10=-60, 10-11=-60, 2-12=-20
   Concentrated Loads (lb)
   Vert: 4=-184(B) 10=-132(B) 19=-361(B) 6=-126(B) 17=-64(B) 15=-64(B) 8=-126(B) 13=-66(B) 24=-126(B) 25=-126(B) 26=-126(B) 28=-126(B) 29=-126(B) 30=-126(B) 31=-126(B) 32=-126(B) 34=-126(B) 35=-126(B) 36=-126(B) 37=-126(B) 38=-64(B) 39=-64(B) 40=-64(B) 41=-64(B) 42=-64(B) 43=-64(B) 44=-64(B) 45=-64(B) 46=-64(B) 47=-64(B) 48=-64(B) 49=-64(B)

Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A01GIR	Half Hip Girder	1	2	T28890168

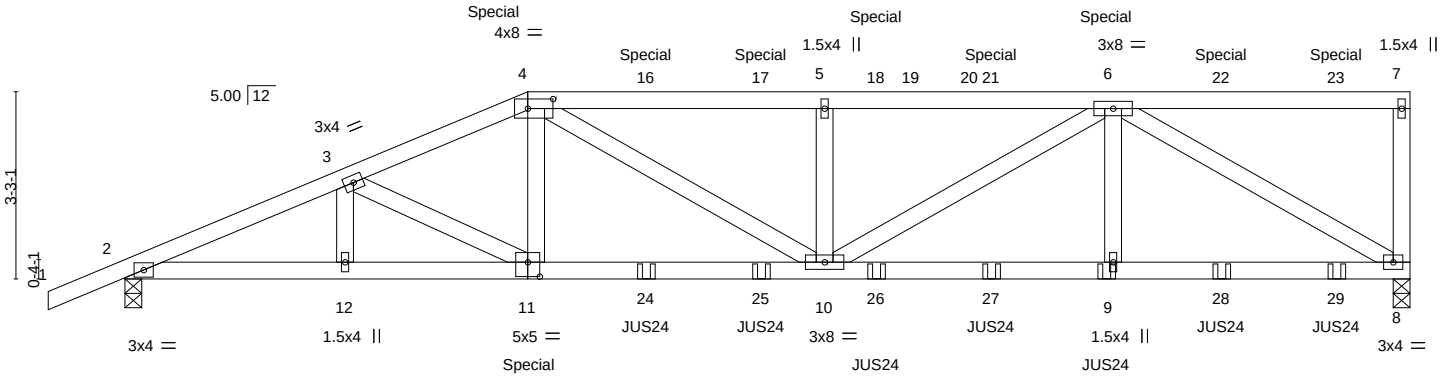
Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:42 2022 Page 1
ID:l6mhBsqQl4K6KneDQWuCZCymcPk-mw0Vw_geaoUlygr4Ut4jTvdwlIAiVSijA7AvgYyYqDx

-1-4-0 | 3-9-14 | 7-0-0 | 12-1-15 | 17-2-1 | 22-4-0
1-4-0 | 3-9-14 | 3-2-2 | 5-1-15 | 5-0-3 | 5-1-15

Scale = 1:40.0



3-9-14 | 7-0-0 | 12-1-15 | 17-2-1 | 22-4-0
3-9-14 | 3-2-2 | 5-1-15 | 5-0-3 | 5-1-15

Plate Offsets (X,Y)-- [4:0-5-4,0-2-0], [11:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.42	Vert(LL)	-0.09	10-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.55	Vert(CT)	-0.19	10-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.40	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 233 lb	FT = 20%

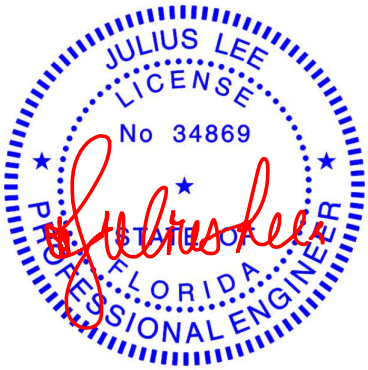
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-10-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=96(LC 24)
Max Grav 8=1960(LC 1), 2=1769(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3868/0, 3-4=-3643/0, 4-5=-3829/0, 5-6=-3829/0, 7-8=-269/55
BOT CHORD 2-12=0/3529, 11-12=0/3529, 10-11=0/3345, 9-10=0/2720, 8-9=0/2720
WEBS 3-11=-296/78, 4-11=0/628, 4-10=-44/617, 5-10=-652/136, 6-10=0/1288, 6-9=0/426, 6-8=-3088/0

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Use MiTek JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-0-12 from the left end to 21-0-12 to connect truss(es) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 231 lb down and 124 lb up at 7-0-0, 126 lb down and 60 lb up at 9-0-12, 126 lb down and 60 lb up at 11-0-12, 126 lb down and 60 lb up at 13-0-12, 126 lb down and 60 lb up at 15-0-12, 126 lb down and 60 lb up at 17-0-12, and 126 lb down and 60 lb up at 19-0-12, and 126 lb down and 60 lb up at 21-0-12 on top chord, and 361 lb down at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:
September 29,2022

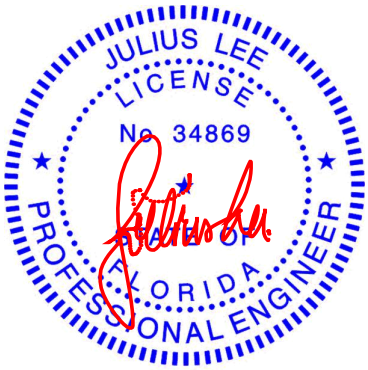
LOAD CASE(S) Standard

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-4=-60, 4-7=-60, 8-13=-20
   Concentrated Loads (lb)
   Vert: 4=-184(F) 11=-361(F) 9=-64(F) 6=-126(F) 16=-126(F) 17=-126(F) 18=-126(F) 21=-126(F) 22=-126(F) 23=-126(F) 24=-64(F) 25=-64(F) 26=-64(F) 27=-64(F) 28=-64(F) 29=-64(F)



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

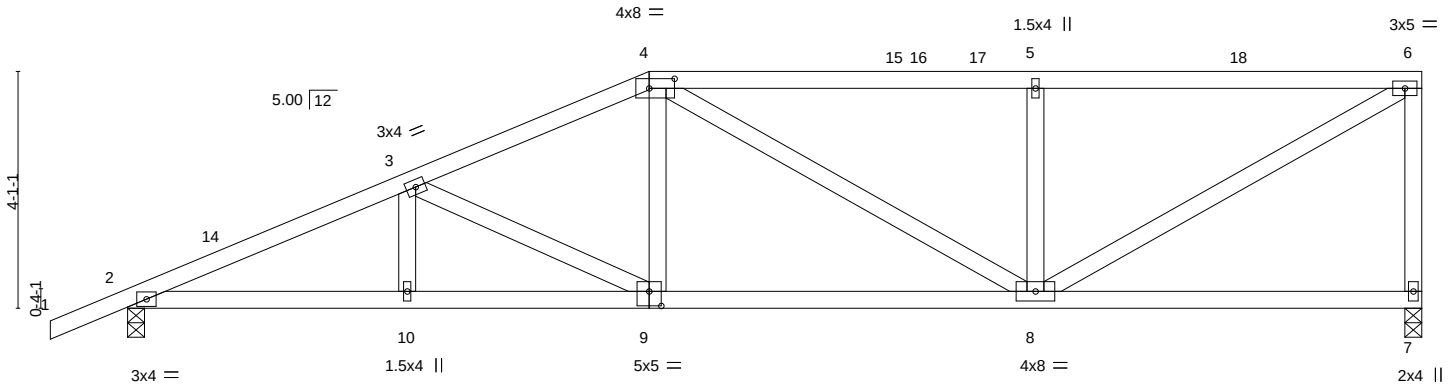
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A02	Half Hip	1	1	T28890169
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:44 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-iJ7GLghu6QkTBz?TcH7BYKjG46rqzOr0dRf0kRyYqDv

-1-4-0	4-9-14	9-0-0	15-8-0	22-4-0
1-4-0	4-9-14	4-2-2	6-8-0	6-8-0

Scale = 1:39.8



4-9-14	9-0-0	15-8-0	22-4-0
4-9-14	4-2-2	6-8-0	6-8-0

Plate Offsets (X,Y)-- [4:0-5-4,0-2-0], [9:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.43	Vert(LL)	-0.09	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.57	Vert(CT)	-0.20	8-9	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 116 lb	FT = 20%

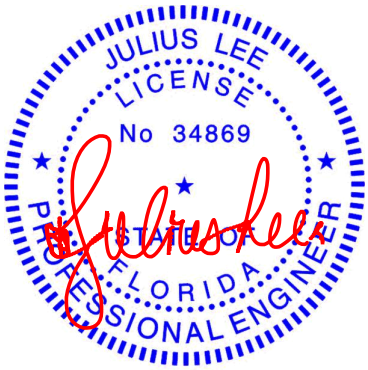
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=121(LC 11)
Max Uplift 7=-8(LC 9), 2=-32(LC 12)
Max Grav 7=885(LC 1), 2=970(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1848/56, 3-4=-1423/93, 4-5=-1164/85, 5-6=-1164/85, 6-7=-826/81
BOT CHORD 2-10=-170/1665, 9-10=-170/1665, 8-9=-132/1271
WEBS 3-9=-438/42, 4-9=0/328, 5-8=-445/104, 6-8=-63/1304

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 9-0-0, Exterior(2R) 9-0-0 to 13-2-15, Interior(1) 13-2-15 to 22-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 7 and 32 lb uplift at joint 2.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

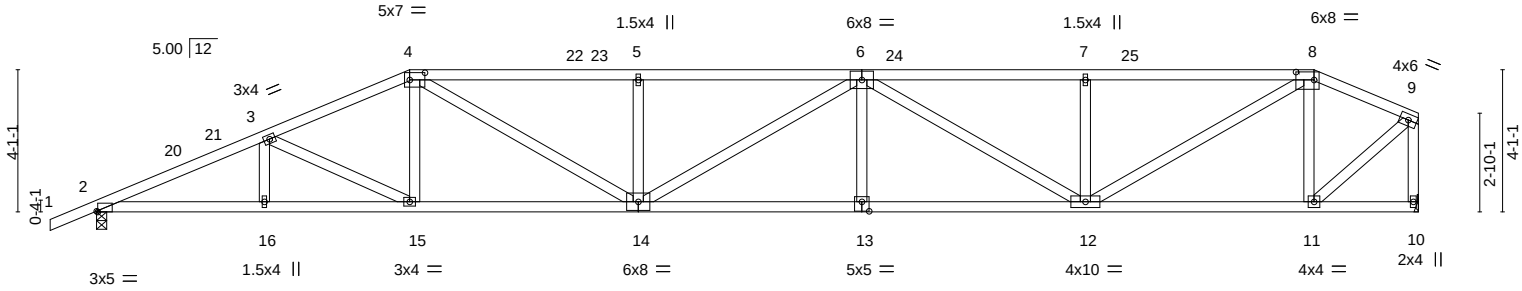
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A02A	Hip	1	1	T28890170
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:45 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-BVheY0iWtjsKp7afA?eQ5YFMnW6IiiQ9s5OaGtyYqDu

1-4-0	4-9-14	9-0-0	15-6-14	22-0-0	28-5-2	35-0-0	38-0-0
1-4-0	4-9-14	4-2-2	6-6-14	6-5-2	6-5-2	6-6-14	3-0-0

Scale = 1:66.2



4-9-14	9-0-0	15-6-14	22-0-0	28-5-2	35-0-0	38-0-0
4-9-14	4-2-2	6-6-14	6-5-2	6-5-2	6-6-14	3-0-0

Plate Offsets (X,Y)-- [2:0-0-6,Edge], [4:0-5-4,0-2-8], [8:0-6-4,0-2-12], [13:0-2-8,0-3-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.75	Vert(LL)	-0.31	14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.88	Vert(CT)	-0.69	13-14	>655	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.16	10	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 203 lb	FT = 20%

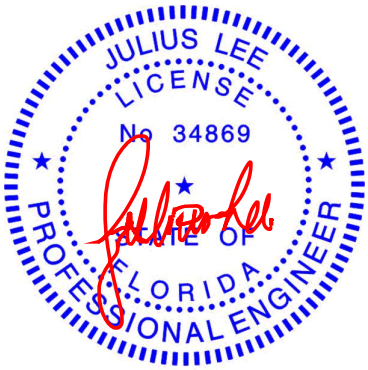
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
13-14: 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 10=Mechanical
Max Horz 2=105(LC 11)
Max Uplift 2=-33(LC 12)
Max Grav 2=1596(LC 1), 10=1513(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3412/112, 3-4=-3041/111, 4-5=-3717/155, 5-6=-3717/155, 6-7=-2909/106, 7-8=-2909/106, 8-9=-1245/66, 9-10=-1495/68
BOT CHORD 2-16=-169/3105, 15-16=-169/3105, 14-15=-111/2777, 13-14=-116/3670, 12-13=-116/3670, 11-12=-57/1095
WEBS 3-15=-376/62, 4-15=0/387, 4-14=-47/1174, 5-14=-456/111, 6-12=-893/22, 7-12=-457/111, 8-12=-55/2105, 8-11=-861/100, 9-11=-55/1475

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=38ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 2-5-10, Interior(1) 2-5-10 to 9-0-0, Exterior(2R) 9-0-0 to 14-4-8, Interior(1) 14-4-8 to 35-0-0, Exterior(2E) 35-0-0 to 37-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 2.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

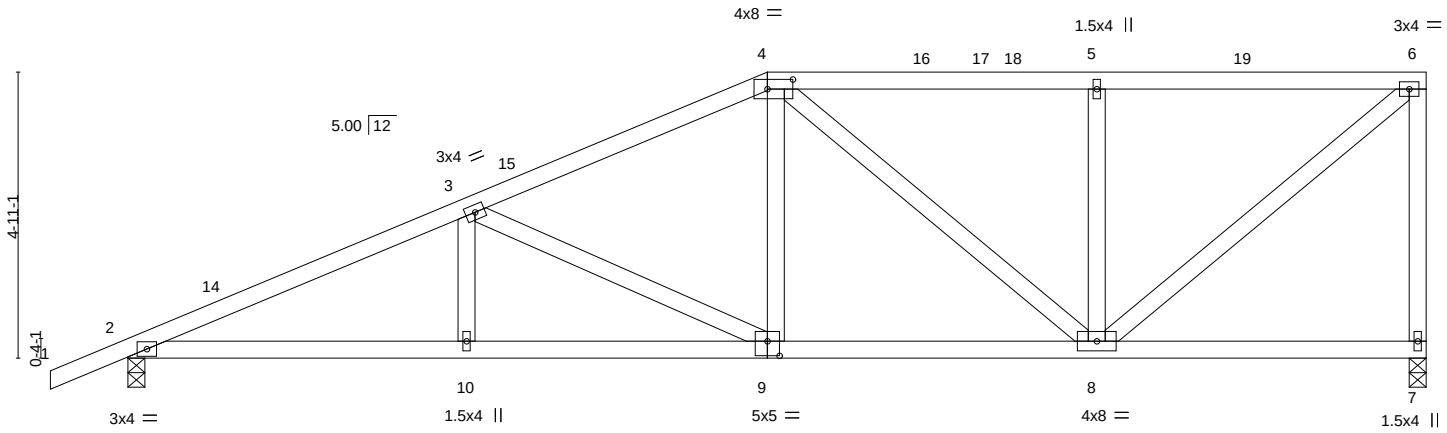
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A03	Half Hip	1	1	T28890171
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:46 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-fhF0mMj8e1_BRH9rji9fdlodBvYpRHUJ5l87pKyYqDt

-1-4-0 | 5-9-14 | 11-0-0 | 16-8-0 | 22-4-0
1-4-0 | 5-9-14 | 5-2-2 | 5-8-0 | 5-8-0

Scale = 1:39.6



5-9-14 | 11-0-0 | 16-8-0 | 22-4-0
5-9-14 | 5-2-2 | 5-8-0 | 5-8-0

Plate Offsets (X,Y)-- [4:0-5-4,0-2-0], [9:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.33	Vert(LL)	-0.06	10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.48	Vert(CT)	-0.13	9-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 121 lb	FT = 20%

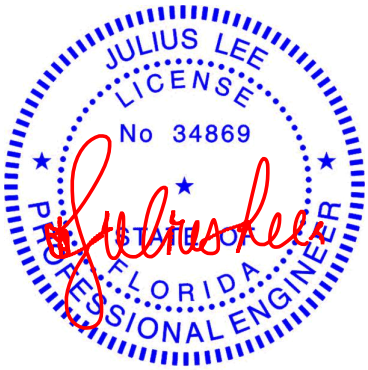
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=147(LC 11)
Max Uplift 7=-8(LC 9), 2=-32(LC 12)
Max Grav 7=885(LC 1), 2=970(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1790/57, 3-4=-1233/94, 4-5=-846/89, 5-6=-846/89, 6-7=-835/83
BOT CHORD 2-10=-180/1616, 9-10=-180/1616, 8-9=-134/1079
WEBS 3-10=0/251, 3-9=-595/51, 4-9=0/370, 4-8=-301/61, 5-8=-382/89, 6-8=-65/1077

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 11-0-0, Exterior(2R) 11-0-0 to 15-2-15, Interior(1) 15-2-15 to 22-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 7 and 32 lb uplift at joint 2.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

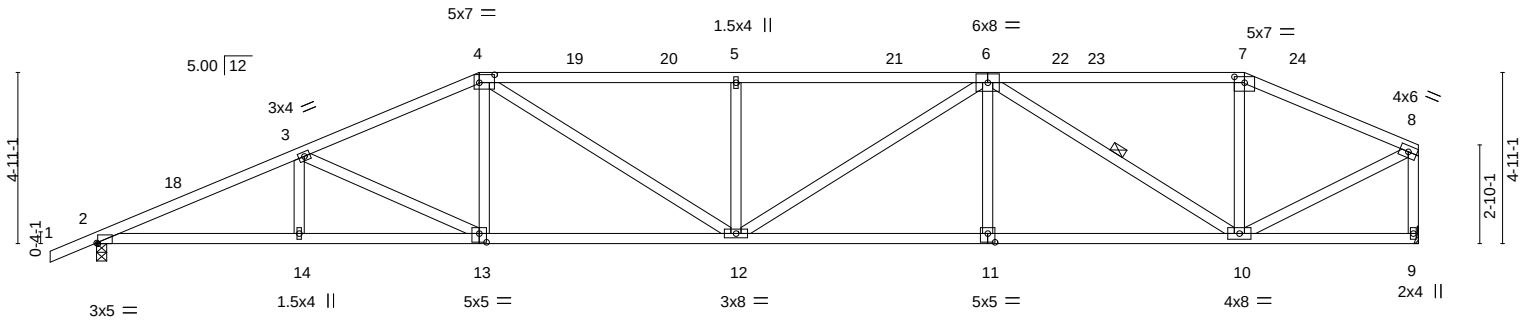
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A03A	Hip	1	1	T28890172
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:48 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-b4NmB2lOAeEugbJEr7B7iAtqEj8uv9XbY2dEtCyYqDr

1-4-0	5-9-14	11-0-0	18-4-9	25-7-7	33-0-0	38-0-0
1-4-0	5-9-14	5-2-2	7-4-9	7-2-13	7-4-9	5-0-0

Scale = 1:66.2



5-9-14	11-0-0	18-4-9	25-7-7	33-0-0	38-0-0
5-9-14	5-2-2	7-4-9	7-2-13	7-4-9	5-0-0

Plate Offsets (X,Y)-- [2:0-0-6,Edge], [4:0-5-4,0-2-12], [7:0-3-8,0-2-1], [11:0-2-8,0-3-0], [13:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.93	Vert(LL)	-0.24	12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.88	Vert(CT)	-0.53	12-13	>850	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.15	9	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 203 lb	FT = 20%

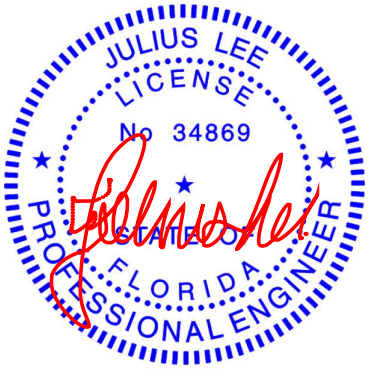
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-10

REACTIONS. (size) 2=0-3-8, 9=Mechanical
Max Horz 2=119(LC 11)
Max Uplift 2=-33(LC 12)
Max Grav 2=1596(LC 1), 9=1513(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3384/111, 3-4=-2849/132, 4-5=-3186/141, 5-6=-3186/141, 6-7=-1475/97, 7-8=-1636/84, 8-9=-1476/83
BOT CHORD 2-14=-160/3072, 13-14=-160/3072, 12-13=-116/2574, 11-12=-100/2705, 10-11=-100/2705
WEBS 3-13=-552/49, 4-13=0/387, 4-12=-4/850, 5-12=-519/122, 6-12=-19/594, 6-10=-1490/42, 7-10=0/324, 8-10=-51/1625

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=38ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 2-5-10, Interior(1) 2-5-10 to 11-0-0, Exterior(2R) 11-0-0 to 16-4-8, Interior(1) 16-4-8 to 33-0-0, Exterior(2E) 33-0-0 to 37-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 2.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A04	Half Hip	1	1	T28890173
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:49 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-3Gx9ONl1wyNlIluQPriMFOQ9_7bJeeylniMnPfyYqDq

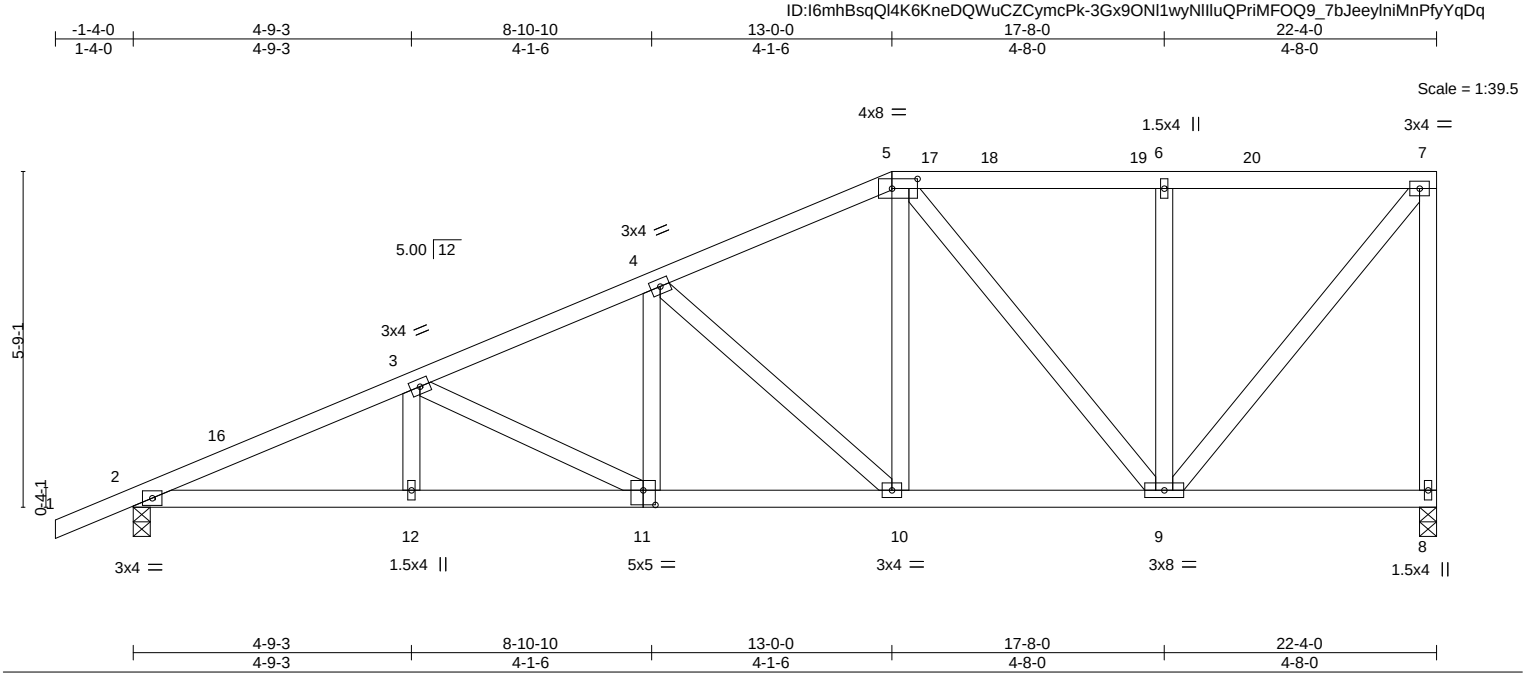


Plate Offsets (X,Y)-- [5:0-5-4,0-2-0], [11:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.29	Vert(LL)	-0.06	11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.42	Vert(CT)	-0.12	11-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 135 lb	FT = 20%

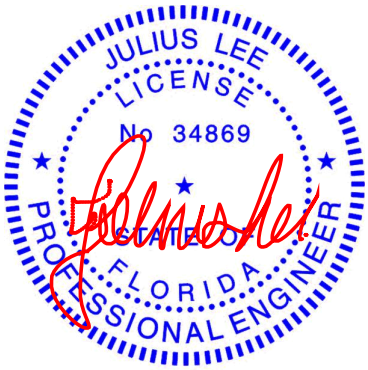
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=172(LC 11)
Max Uplift 8=-7(LC 9), 2=-31(LC 12)
Max Grav 8=885(LC 1), 2=970(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1852/46, 3-4=-1442/79, 4-5=-1002/94, 5-6=-611/95, 6-7=-611/95, 7-8=-841/88
BOT CHORD 2-12=-186/1670, 11-12=-186/1670, 10-11=-172/1278, 9-10=-124/891
WEBS 3-11=-428/17, 4-11=0/290, 4-10=-530/63, 5-10=0/449, 5-9=-431/54, 6-9=-307/80, 7-9=-73/941

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 13-0-0, Exterior(2R) 13-0-0 to 17-2-15, Interior(1) 17-2-15 to 22-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 8 and 31 lb uplift at joint 2.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

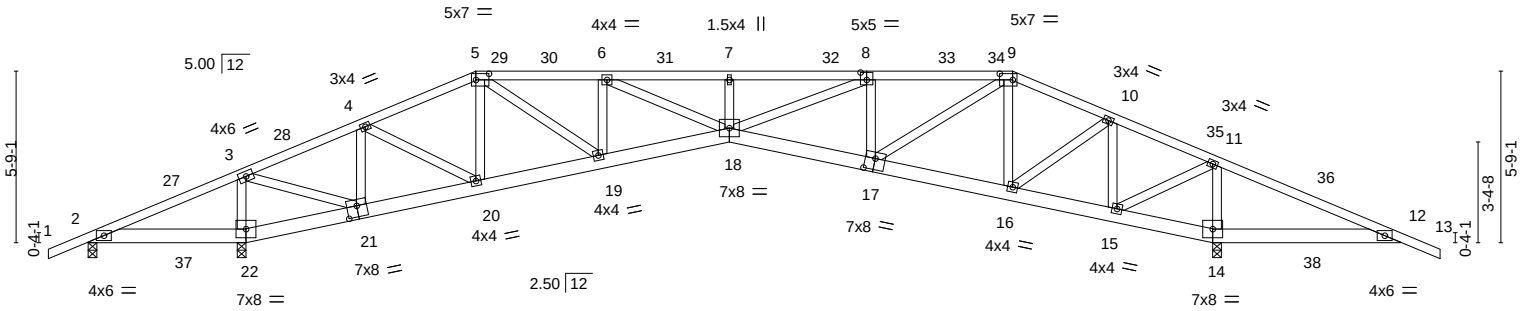
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A04A	Hip	1	1	T28890174
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:51 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-?f2vp3nHSZdTX22pWGlqKpVNnwGU6Ur2E0ruUXyYqDo

1-4-0	5-3-8	9-1-12	13-0-0	17-3-0	21-6-0	26-3-0	31-0-0	34-4-4	37-8-8	44-0-0	45-4-0
1-4-0	5-3-8	3-10-4	3-10-4	4-3-0	4-3-0	4-9-0	4-9-0	3-4-4	3-4-4	6-3-8	1-4-0

Scale = 1:77.3



5-3-8	9-1-12	13-0-0	17-3-0	21-6-0	26-3-0	31-0-0	34-4-4	37-8-8	38-0-0	44-0-0
5-3-8	3-10-4	3-10-4	4-3-0	4-3-0	4-9-0	4-9-0	3-4-4	3-4-4	0-3-8	6-0-0

Plate Offsets (X,Y)-- [5:0-5-4,0-2-8], [8:0-2-8,0-3-0], [9:0-5-4,0-2-8], [17:0-4-0,0-4-8], [21:0-4-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.72	Vert(LL)	-0.23	18	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.44	Vert(CT)	-0.45	18	>862	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.20	14	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 264 lb	FT = 20%

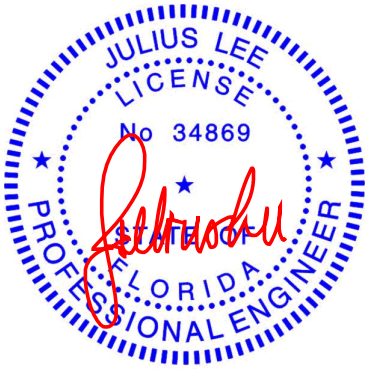
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 22=0-3-8, 14=0-3-8
Max Horz 2=103(LC 11)
Max Uplift 2=-765(LC 22), 14=-44(LC 12)
Max Grav 22=2601(LC 21), 14=1785(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=0/2533, 3-4=0/337, 4-5=-1007/53, 5-6=-2035/13, 6-7=-3438/0, 7-8=-3438/0, 8-9=-2151/0, 9-10=-1229/0, 10-11=-640/0, 11-12=-544/833
BOT CHORD 2-22=-2287/0, 21-22=-2490/0, 20-21=-281/52, 19-20=0/888, 18-19=0/2079, 17-18=0/2265, 16-17=0/1148, 15-16=0/593, 14-15=-826/599, 12-14=-708/562
WEBS 3-22=-1920/27, 3-21=0/2362, 4-21=-1207/9, 4-20=0/1163, 5-20=-662/13, 5-19=0/1418, 6-19=-925/9, 6-18=0/1549, 7-18=-274/69, 8-18=0/1333, 8-17=-787/48, 9-17=0/1230, 9-16=-497/155, 10-16=-143/806, 10-15=-896/168, 11-15=-131/1382, 11-14=-1424/209

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=44ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 13-0-0, Exterior(2R) 13-0-0 to 19-2-11, Interior(1) 19-2-11 to 31-0-0, Exterior(2R) 31-0-0 to 37-2-11, Interior(1) 37-2-11 to 45-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 765 lb uplift at joint 2 and 44 lb uplift at joint 14.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A05	Half Hip	1	1	T28890175
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:52 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-TrcH0PovDtlK9Cc?4zG3t02czKa?rzUBTgbR0zyYqDn

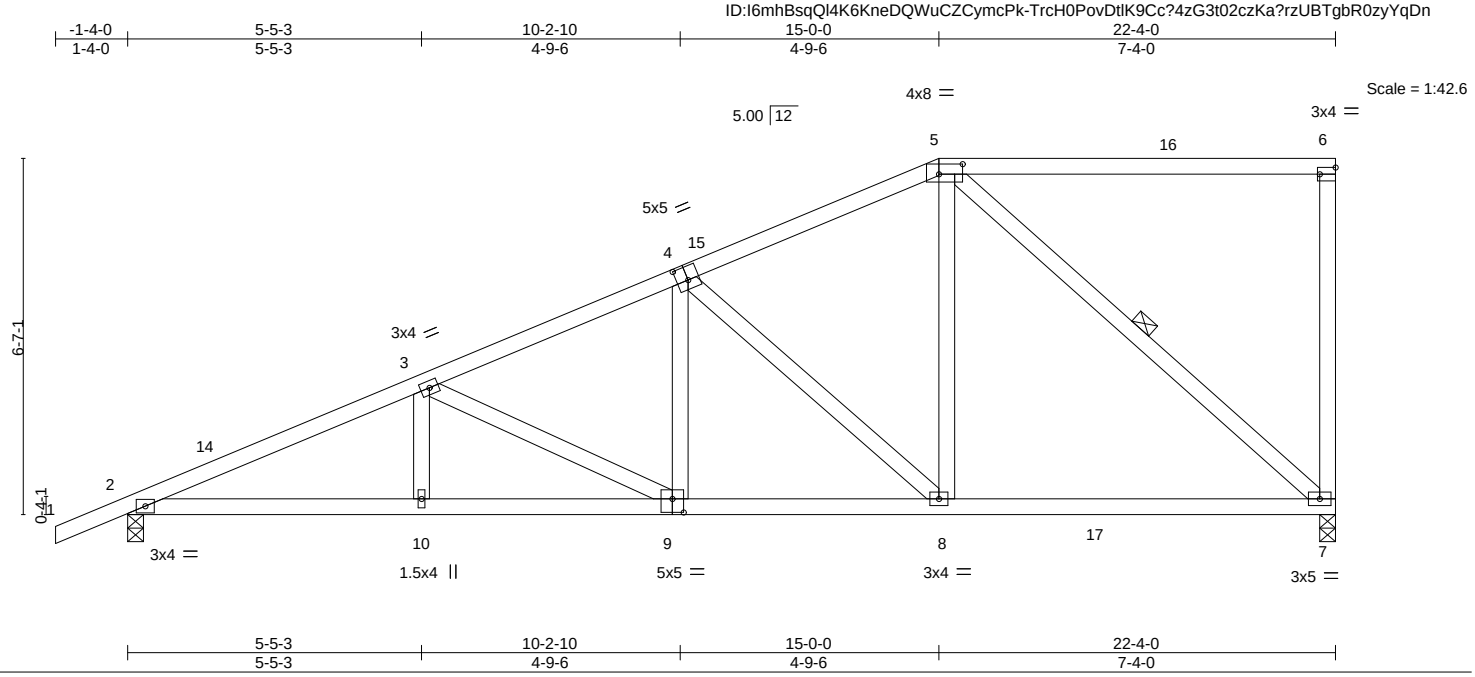


Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [5:0-5-4,0-2-4], [6:Edge,0-1-8], [9:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.50	Vert(LL)	-0.10	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.55	Vert(CT)	-0.17	7-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 127 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-7

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=197(LC 11)
Max Uplift 7=-7(LC 9), 2=-30(LC 12)
Max Grav 7=1005(LC 17), 2=1059(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2021/48, 3-4=-1442/73, 4-5=-897/94
BOT CHORD 2-10=-195/1893, 9-10=-195/1893, 8-9=-162/1298, 7-8=-120/856
WEBS 3-9=-639/39, 4-9=0/406, 4-8=-615/55, 5-8=0/697, 5-7=-1078/94

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 15-0-0, Exterior(2R) 15-0-0 to 19-2-15, Interior(1) 19-2-15 to 22-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 7 and 30 lb uplift at joint 2.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

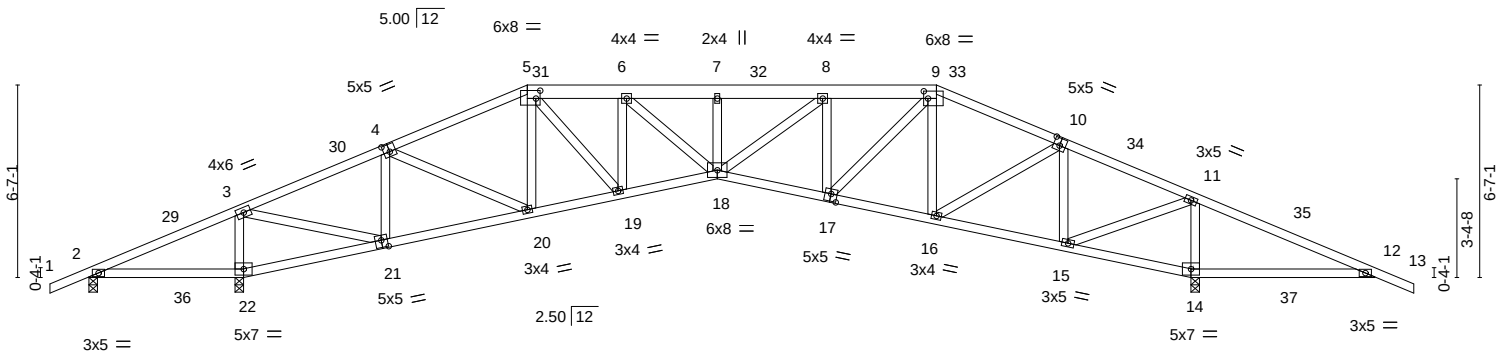
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A05A	Hip	1	1	T28890176
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:54 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-QEk2R5p9lU?2OWmOBOIXyR7wO8HfJsSUw_4Y5syYqDl

1-4-0	5-3-8	10-1-12	15-0-0	18-3-0	21-6-0	25-3-0	29-0-0	33-4-4	37-8-8	44-0-0	45-4-0
1-4-0	5-3-8	4-10-4	4-10-4	3-3-0	3-3-0	3-9-0	3-9-0	4-4-4	4-4-4	6-3-8	1-4-0

Scale = 1:78.8



5-1-12	5-3-8	10-1-12	15-0-0	18-3-0	21-6-0	25-3-0	29-0-0	33-4-4	37-8-8	38-0-0	44-0-0
5-1-12	0-1-12	4-10-4	4-10-4	3-3-0	3-3-0	3-9-0	3-9-0	4-4-4	4-4-4	0-3-8	6-0-0

Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [5:0-1-12,0-3-4], [9:0-1-12,0-3-0], [10:0-2-8,0-3-0], [17:0-2-8,0-3-0], [21:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.63	Vert(LL)	-0.14	18	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.48	Vert(CT)	-0.28	17-18	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.14	14	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 247 lb	FT = 20%

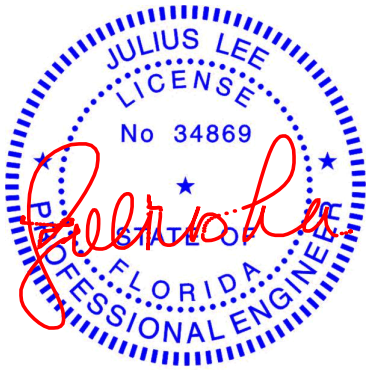
LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
5-9: 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 22=0-3-8, 14=0-3-8
Max Horz 2=-117(LC 10)
Max Uplift 2=-366(LC 22), 22=-3(LC 12), 14=-43(LC 12)
Max Grav 22=2119(LC 1), 14=1850(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=0/1428, 3-4=-834/68, 4-5=-1613/49, 5-6=-2096/31, 6-7=-2775/0, 7-8=-2775/0, 8-9=-2039/0, 9-10=-1497/0, 10-11=-869/0, 11-12=-533/816
BOT CHORD 2-22=-1251/0, 21-22=-1408/0, 20-21=0/782, 19-20=0/1479, 18-19=0/2145, 17-18=0/2113, 16-17=0/1373, 15-16=0/804, 14-15=-795/576, 12-14=-680/540
WEBS 3-22=-1699/62, 3-21=0/2122, 4-21=-871/14, 4-20=0/776, 5-20=-364/24, 5-19=0/986, 6-19=-818/0, 6-18=0/903, 8-18=0/893, 8-17=-818/50, 9-17=-14/1019, 9-16=-387/136, 10-16=-131/696, 10-15=-812/165, 11-15=-147/1604, 11-14=-1549/247

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=44ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 15-0-0, Exterior(2R) 15-0-0 to 21-6-0, Interior(1) 21-6-0 to 29-0-0, Exterior(2R) 29-0-0 to 35-2-11, Interior(1) 35-2-11 to 45-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 366 lb uplift at joint 2, 3 lb uplift at joint 22 and 43 lb uplift at joint 14.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A06	Half Hip	1	1	T28890177
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:55 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-uQIQfRqnWo7v0gLal5pmUfg9cYcd2GWd9ep6dIyYqDk

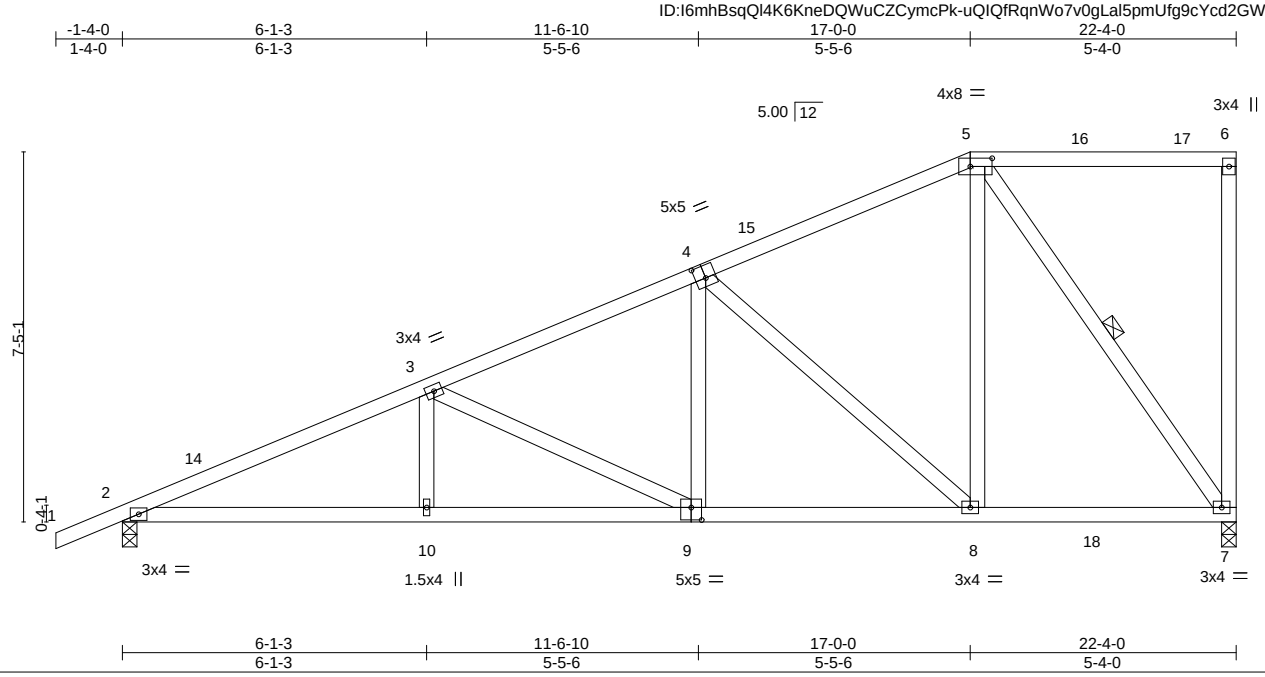


Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [5:0-5-4,0-2-0], [9:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.35	Vert(LL)	-0.08	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.56	Vert(CT)	-0.16	9-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 133 lb	FT = 20%

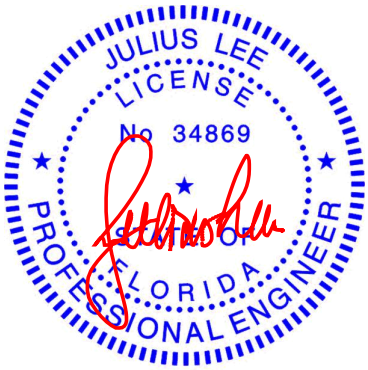
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-7

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=222(LC 11)
Max Uplift 7=-3(LC 12), 2=-29(LC 12)
Max Grav 7=1010(LC 17), 2=1054(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1967/47, 3-4=-1288/73, 4-5=-662/98
BOT CHORD 2-10=-196/1847, 9-10=-196/1847, 8-9=-156/1153, 7-8=-112/622
WEBS 3-10=0/260, 3-9=-746/45, 4-9=0/477, 4-8=-730/57, 5-8=0/736, 5-7=-1011/97

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 17-0-0, Exterior(2R) 17-0-0 to 21-2-15, Interior(1) 21-2-15 to 22-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 7 and 29 lb uplift at joint 2.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

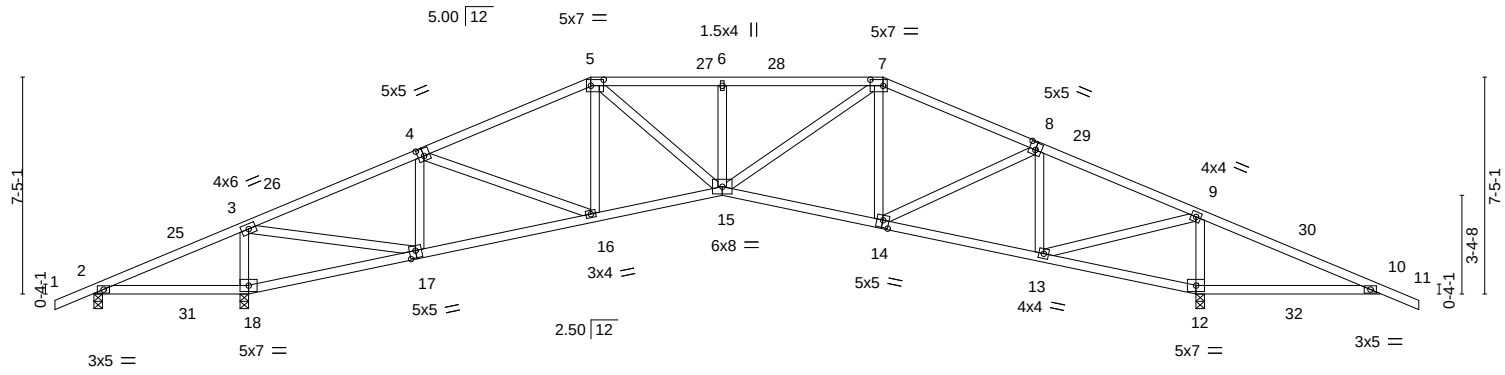
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A06A	Hip	1	1	T28890178
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:57 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-qpQA47r22PNdFzVytWsEa4lQCLHlWDywcyICiByYqDi

1-4-0	5-3-8	11-1-12	17-0-0	21-6-0	27-0-0	32-4-4	37-8-8	44-0-0	45-4-0
1-4-0	5-3-8	5-10-4	5-10-4	4-6-0	5-6-0	5-4-4	5-4-4	6-3-8	1-4-0

Scale = 1:78.8



5-3-8	11-1-12	17-0-0	21-6-0	27-0-0	32-4-4	37-8-8	38-0-0	44-0-0
5-3-8	5-10-4	5-10-4	4-6-0	5-6-0	5-4-4	5-4-4	0-3-8	6-0-0

Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [5:0-5-4,0-2-8], [7:0-5-4,0-2-8], [8:0-2-8,0-3-0], [14:0-2-8,0-3-0], [17:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.66	Vert(LL)	-0.13	15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.52	Vert(CT)	-0.28	14-15	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.13	12	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 227 lb	FT = 20%

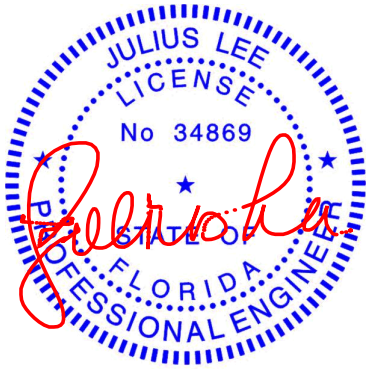
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 18=0-3-8, 12=0-3-8
Max Horz 2=-132(LC 10)
Max Uplift 2=-260(LC 22), 18=-10(LC 12), 12=-43(LC 12)
Max Grav 18=2013(LC 1), 12=1865(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=0/1175, 3-4=-1206/46, 4-5=-1771/35, 5-6=-2198/0, 6-7=-2198/0, 7-8=-1620/2, 8-9=-1119/0, 9-10=-534/805
BOT CHORD 2-18=-1014/0, 17-18=-1162/0, 16-17=0/1113, 15-16=0/1628, 14-15=0/1500, 13-14=0/1002, 12-13=-783/577, 10-12=-666/540
WEBS 3-18=-1639/79, 3-17=0/2186, 4-17=-725/28, 4-16=0/566, 5-15=0/828, 6-15=-309/77, 7-15=-3/932, 8-14=-128/543, 8-13=-711/173, 9-13=-168/1771, 9-12=-1568/258

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=44ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 17-0-0, Exterior(2R) 17-0-0 to 23-2-11, Interior(1) 23-2-11 to 27-0-0, Exterior(2R) 27-0-0 to 33-2-11, Interior(1) 33-2-11 to 45-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 260 lb uplift at joint 2, 10 lb uplift at joint 18 and 43 lb uplift at joint 12.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A07	Half Hip	1	1	T28890179
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:58 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-I?zYHSsgpjVUt749QENT6HIeAlcKFfB4rc2mEdyYqDh

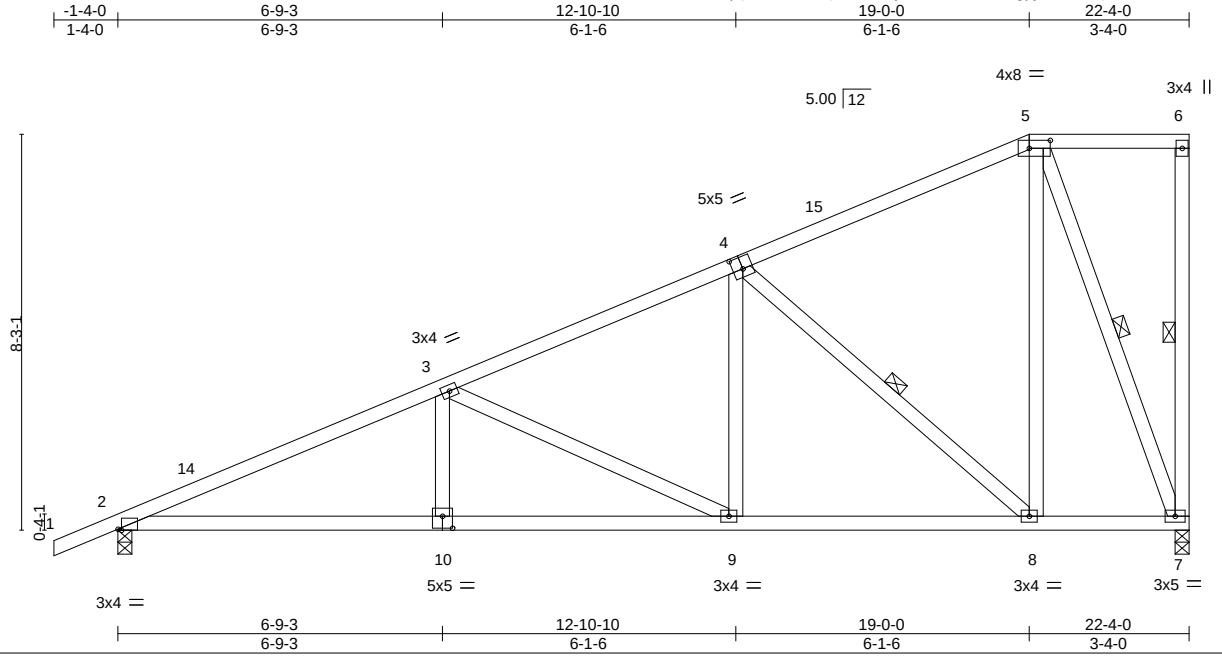


Plate Offsets (X,Y)-- [2:0-0-14,Edge], [4:0-2-8,0-3-0], [5:0-5-4,0-2-0], [10:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.45	Vert(LL)	-0.09	10-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.62	Vert(CT)	-0.21	10-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 139 lb	FT = 20%

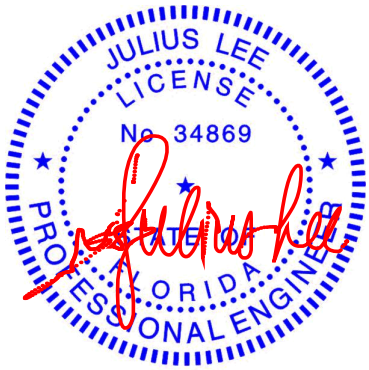
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-7, 4-8, 5-7

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=247(LC 11)
Max Uplift 7=-5(LC 12), 2=-28(LC 12)
Max Grav 7=885(LC 1), 2=970(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1712/63, 3-4=-1059/62, 4-5=-389/103
BOT CHORD 2-10=-207/1544, 9-10=-207/1544, 8-9=-138/889, 7-8=-103/327
WEBS 3-9=-715/77, 4-9=0/492, 4-8=-764/46, 5-8=0/600, 5-7=-874/113

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 19-0-0, Exterior(2E) 19-0-0 to 22-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 7 and 28 lb uplift at joint 2.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



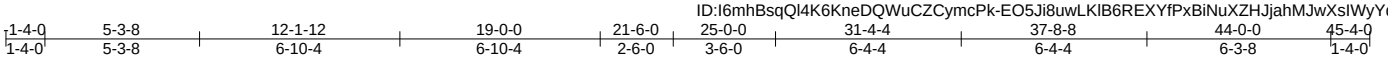
Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

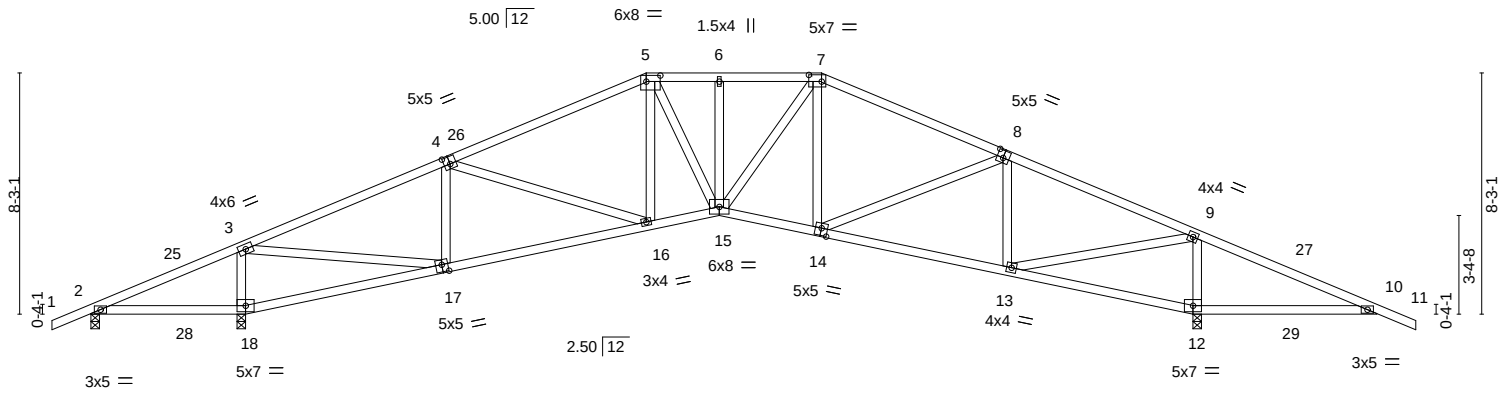
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A07A	Hip	1	1	T28890180
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:00 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-EO5Ji8uwLKlB6REXYfPxBiNuXZHJjahMJwXslWyYqDf



Scale = 1:78.8



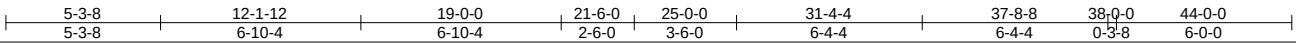


Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [5:0-5-12,0-2-8], [7:0-5-4,0-2-12], [8:0-2-8,0-3-0], [14:0-2-8,0-3-0], [17:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.85	Vert(LL)	-0.14	16-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.65	Vert(CT)	-0.32	16-17	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.11	12	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 234 lb	FT = 20%

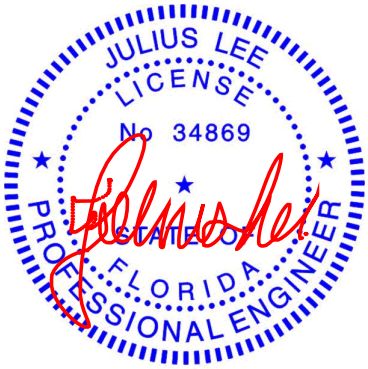
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 18=0-3-8, 12=0-3-8
Max Horz 2=-146(LC 10)
Max Uplift 2=-164(LC 22), 18=-16(LC 12), 12=-42(LC 12)
Max Grav 18=1909(LC 1), 12=1879(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=0/919, 3-4=-1506/35, 4-5=-1837/24, 5-6=-1815/18, 6-7=-1815/18, 7-8=-1687/13, 8-9=-1330/0, 9-10=-534/788
BOT CHORD 2-18=-773/0, 17-18=-914/0, 16-17=0/1377, 15-16=0/1674, 14-15=0/1548, 13-14=0/1188, 12-13=-764/577, 10-12=-647/539
WEBS 3-18=-1579/95, 3-17=0/2191, 4-17=-593/39, 4-16=0/380, 5-15=0/443, 7-15=0/568, 8-14=-120/388, 8-13=-623/179, 9-13=-183/1911, 9-12=-1584/268

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=44ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 19-0-0, Exterior(2E) 19-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 31-3-3, Interior(1) 31-3-3 to 45-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 2, 16 lb uplift at joint 18 and 42 lb uplift at joint 12.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A08	Half Hip	1	1	T28890181
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:01 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-jafhvUvY6et2kbok6MwAkww4CybZSzqWXaGQryyYqDe

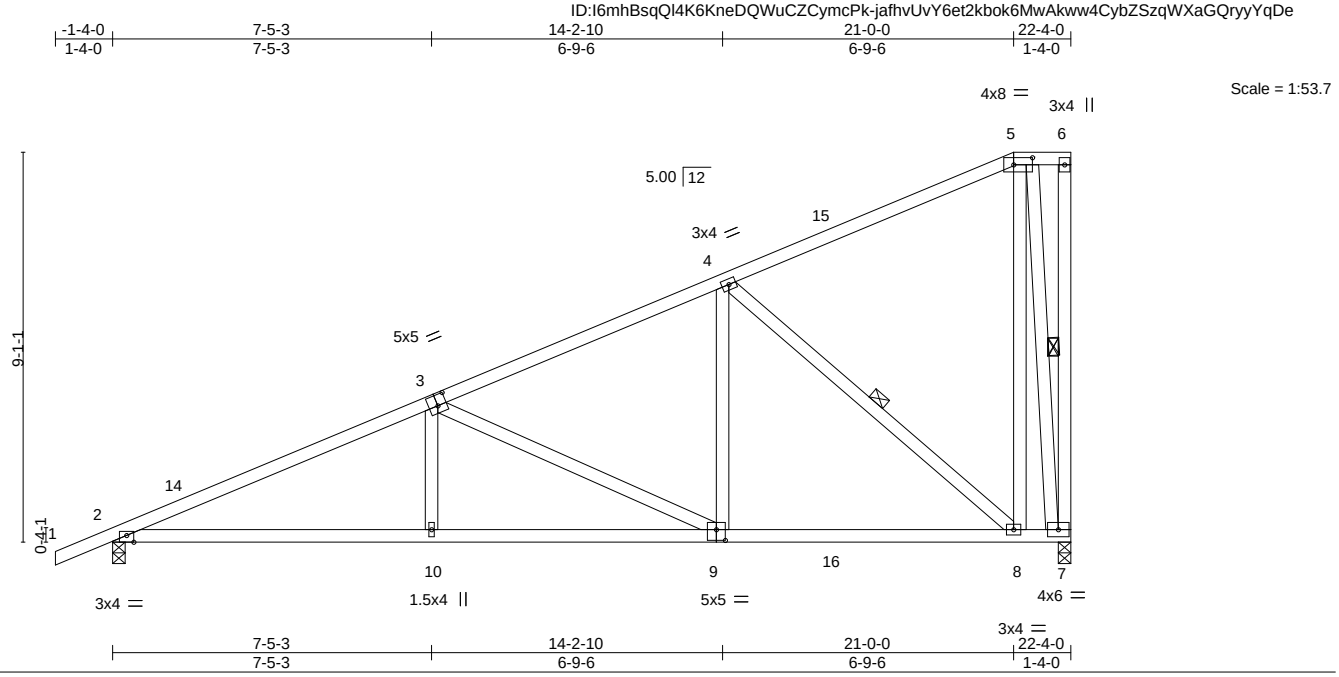


Plate Offsets (X,Y)-- [2:0-2-0,Edge], [3:0-2-8,0-3-0], [5:0-5-4,0-2-0], [9:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.79	Vert(LL)	-0.14	10-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.78	Vert(CT)	-0.26	10-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 146 lb	FT = 20%

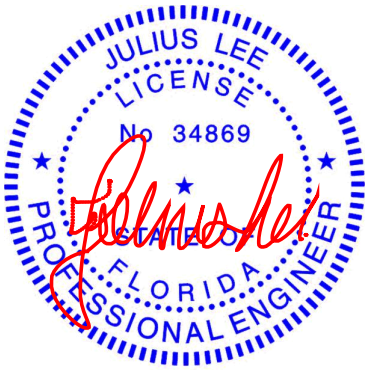
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-7, 4-8, 5-7

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=272(LC 11)
Max Uplift 7=-6(LC 12), 2=-26(LC 12)
Max Grav 7=1028(LC 17), 2=1057(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1802/22, 3-4=-1021/86, 4-5=-298/107
BOT CHORD 2-10=-157/1684, 9-10=-159/1675, 8-9=-149/949
WEBS 3-10=0/337, 3-9=-792/12, 4-9=0/561, 4-8=-1030/91, 5-8=-63/968, 5-7=-1174/75

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 21-0-0, Exterior(2E) 21-0-0 to 22-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 7 and 26 lb uplift at joint 2.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

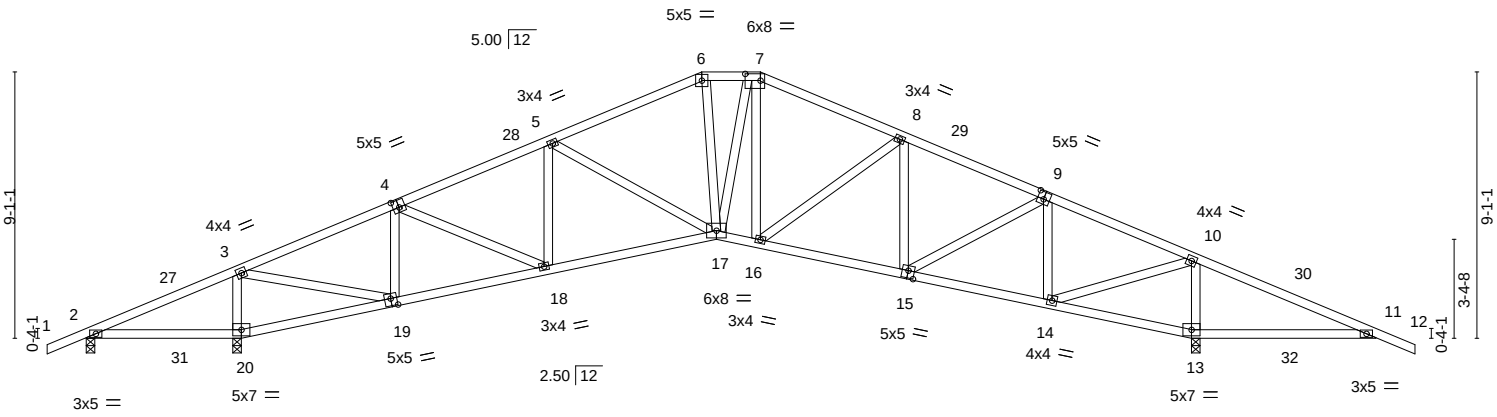
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A08A	Hip	1	1	T28890182
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:03 2022 Page 1
ID:l6mhBsqQl4K6KneDQWuCZCymcPk-fznRKAwpdF7mzuy6DnyepL?TnmLZwxvp?ulXvryYqDc

1-4-0	5-3-8	10-6-5	15-9-3	21-0-0	23-0-0	27-10-13	32-9-11	37-8-8	44-0-0	45-4-0
1-4-0	5-3-8	5-2-13	5-2-13	5-2-13	2-0-0	4-10-13	4-10-13	4-10-13	6-3-8	1-4-0

Scale = 1:78.6



5-3-8	10-6-5	15-9-3	21-6-0	23-0-0	27-10-13	32-9-11	37-8-8	38-0-0	44-0-0
5-3-8	5-2-13	5-2-13	5-8-13	1-6-0	4-10-13	4-10-13	4-10-13	0-3-8	6-0-0

Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [7:0-6-4,0-2-12], [9:0-2-8,0-3-0], [15:0-2-8,0-3-0], [19:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.59	Vert(LL)	-0.10	17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.49	Vert(CT)	-0.22	17-18	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.11	13	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 243 lb	FT = 20%

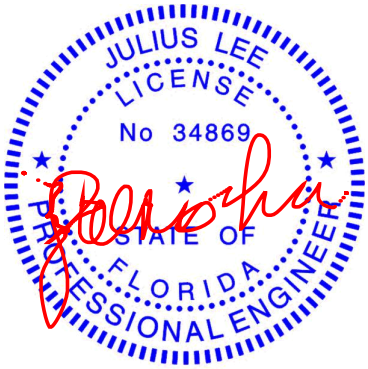
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 20=0-3-8, 13=0-3-8
Max Horz 2=-160(LC 10)
Max Uplift 2=-209(LC 17), 20=-11(LC 12), 13=-42(LC 12)
Max Grav 20=1971(LC 1), 13=1870(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=0/1099, 3-4=-1117/41, 4-5=-1770/23, 5-6=-1682/11, 6-7=-1527/20, 7-8=-1622/9, 8-9=-1588/0, 9-10=-1030/0, 10-11=-534/811
BOT CHORD 2-20=-947/0, 19-20=-1091/0, 18-19=0/1040, 17-18=0/1647, 16-17=0/1467, 15-16=0/1488, 14-15=0/923, 13-14=-790/576, 11-13=-673/540
WEBS 3-20=-1616/61, 3-19=0/2058, 4-19=-777/11, 4-18=0/652, 5-18=-258/37, 6-17=0/424, 7-17=-20/400, 8-15=-341/129, 9-15=-124/623, 9-14=-763/164, 10-14=-147/1717, 10-13=-1572/245

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=44ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 21-0-0, Exterior(2E) 21-0-0 to 23-0-0, Exterior(2R) 23-0-0 to 29-2-11, Interior(1) 29-2-11 to 45-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 209 lb uplift at joint 2, 11 lb uplift at joint 20 and 42 lb uplift at joint 13.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A09	Common	3	1	T28890183
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:04 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-79LpYWxROZFdb2XJnUUtMYYa9AcUfljyDYV4RHyYqDb

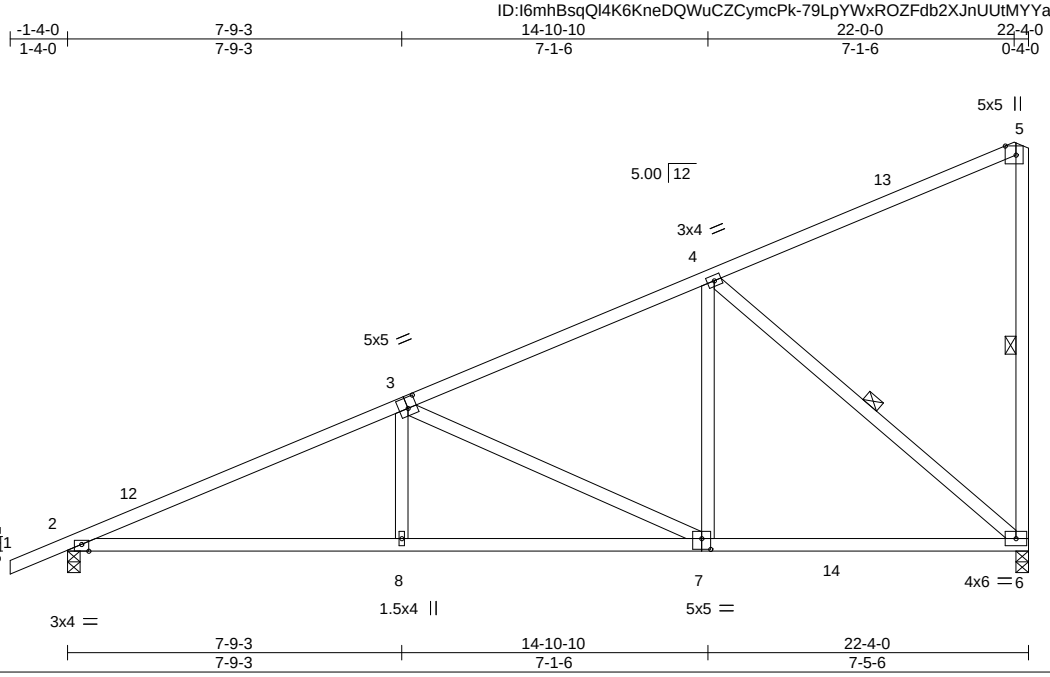


Plate Offsets (X,Y)-- [2:0-2-0,Edge], [3:0-2-8,0-3-0], [5:0-2-9,Edge], [7:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.87	Vert(LL)	-0.21	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.83	Vert(CT)	-0.37	6-7	>714	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 123 lb	FT = 20%

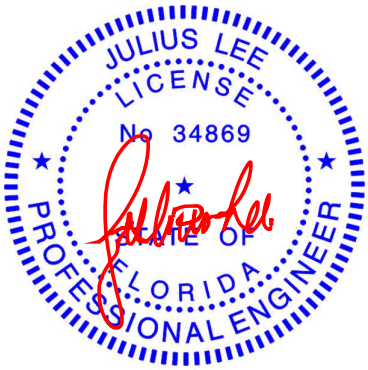
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-6, 4-6

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=287(LC 11)
Max Uplift 2=-25(LC 12), 6=-7(LC 12)
Max Grav 2=1056(LC 17), 6=1039(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1768/75, 3-4=-967/114
BOT CHORD 2-8=-222/1654, 7-8=-224/1645, 6-7=-183/884
WEBS 3-8=0/354, 3-7=-830/50, 4-7=0/595, 4-6=-1106/149

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 22-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 2 and 7 lb uplift at joint 6.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

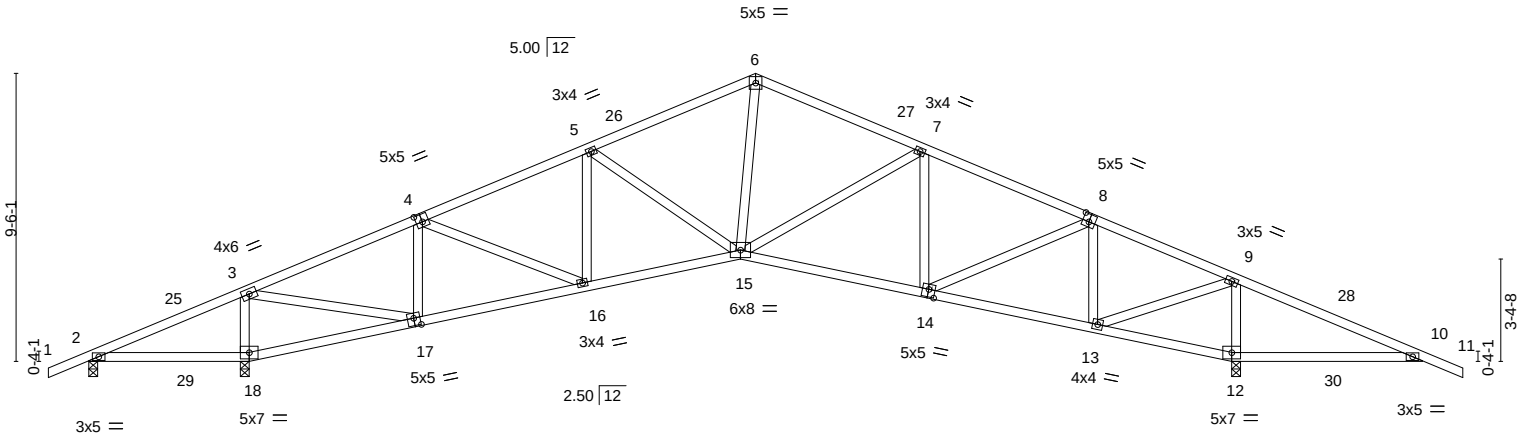
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A10	Roof Special	5	1	T28890184
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:06 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-3XSazByhwAWLqMhhuvWLRzd_hzLm7IUFhs_BW9yYqDZ

1-4-0	5-3-8	10-10-5	16-5-3	22-0-0	27-6-13	33-1-11	37-8-8	44-0-0	45-4-0
1-4-0	5-3-8	5-6-13	5-6-13	5-6-13	5-6-13	5-6-13	4-6-13	6-3-8	1-4-0

Scale = 1:76.0



5-3-8	10-10-5	16-5-3	21-6-0	27-6-13	33-1-11	37-8-8	38-0-0	44-0-0
5-3-8	5-6-13	5-6-13	5-0-13	6-0-13	5-6-13	4-6-13	0-3-8	6-0-0

Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [8:0-2-8,0-3-0], [14:0-2-8,0-3-0], [17:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.61	Vert(LL)	-0.11	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.59	Vert(CT)	-0.27	14-15	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.11	12	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 230 lb	FT = 20%

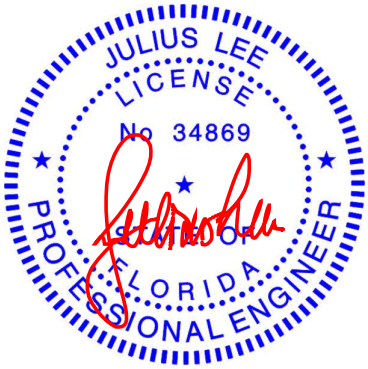
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 18=0-3-8, 12=0-3-8
Max Horz 2=-167(LC 10)
Max Uplift 2=-204(LC 17), 18=-12(LC 12), 12=-42(LC 12)
Max Grav 18=1963(LC 1), 12=1872(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=0/1074, 3-4=-1204/44, 4-5=-1797/30, 5-6=-1674/22, 6-7=-1590/20, 7-8=-1619/1, 8-9=-958/0, 9-10=-533/816
BOT CHORD 2-18=-923/0, 17-18=-1067/0, 16-17=0/1115, 15-16=0/1670, 14-15=0/1514, 13-14=0/861, 12-13=-794/576, 10-12=-679/540
WEBS 3-18=-1611/68, 3-17=0/2100, 4-17=-736/19, 4-16=0/592, 5-15=-272/121, 6-15=0/904, 7-14=-322/141, 8-14=-139/690, 8-13=-786/170, 9-13=-142/1676, 9-12=-1577/243

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=44ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 22-0-0, Exterior(2R) 22-0-0 to 26-4-13, Interior(1) 26-4-13 to 45-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 204 lb uplift at joint 2, 12 lb uplift at joint 18 and 42 lb uplift at joint 12.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	B01GE	Common Supported Gable	1	1	T28890185
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:08 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-?waKNt_xSnm33gr40KYpWOiR0n9nbIVY8ATIa2yYqDX

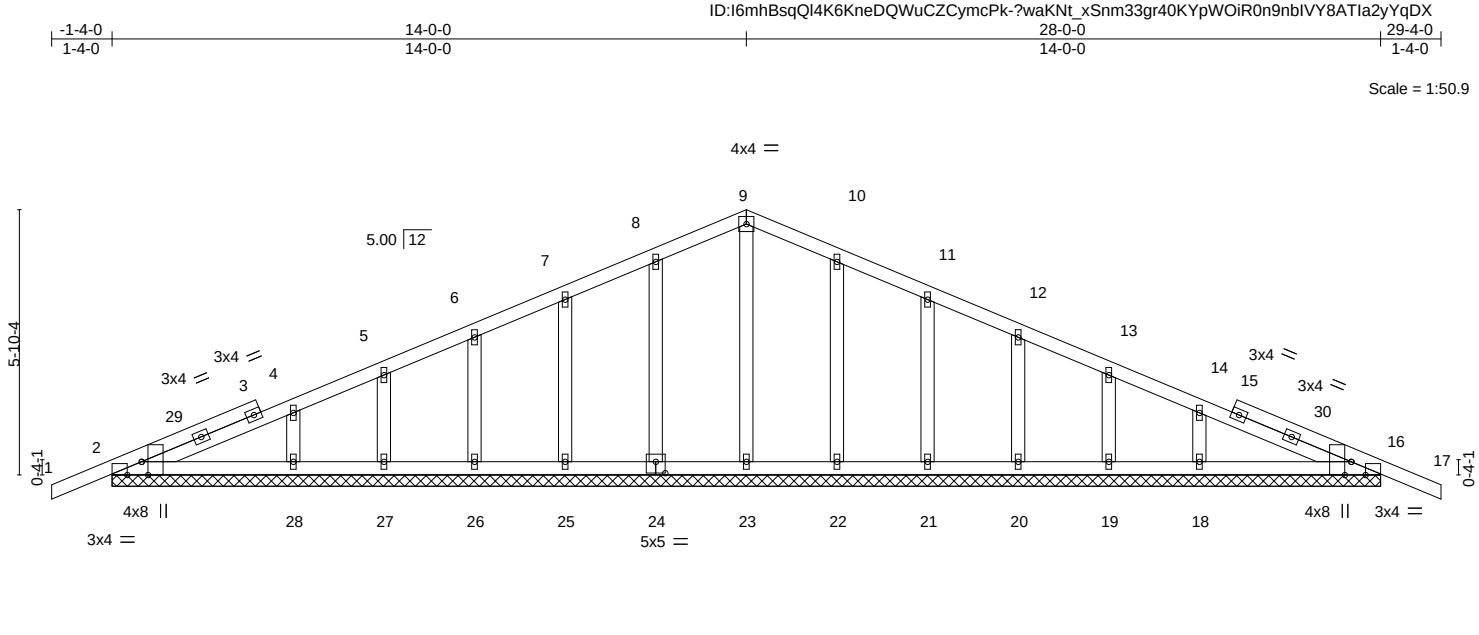


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-3-13,Edge], [16:0-3-8,Edge], [16:0-3-13,Edge], [24:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.11	Vert(LL)	-0.00	16	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.10	Vert(CT)	0.00	16	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	16	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 149 lb	FT = 20%

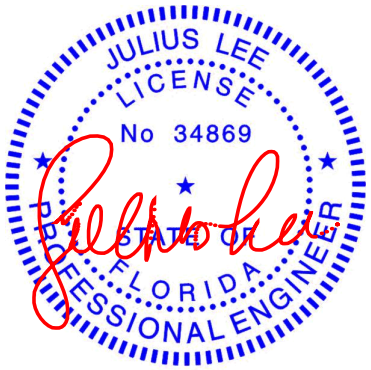
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 28-0-0.
(lb) - Max Horz 2=-90(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 24, 25, 26, 27, 22, 21, 20, 19
Max Grav All reactions 250 lb or less at joint(s) 2, 16, 23, 24, 25, 26, 27, 22, 21, 20, 19 except 28=269(LC 1), 18=269(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=28ft; eave=2ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Corner(3E) -1-4-0 to 1-8-0, Exterior(2N) 1-8-0 to 14-0-0, Corner(3R) 14-0-0 to 17-0-0, Exterior(2N) 17-0-0 to 29-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
5) All plates are 1.5x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 24, 25, 26, 27, 22, 21, 20, 19.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

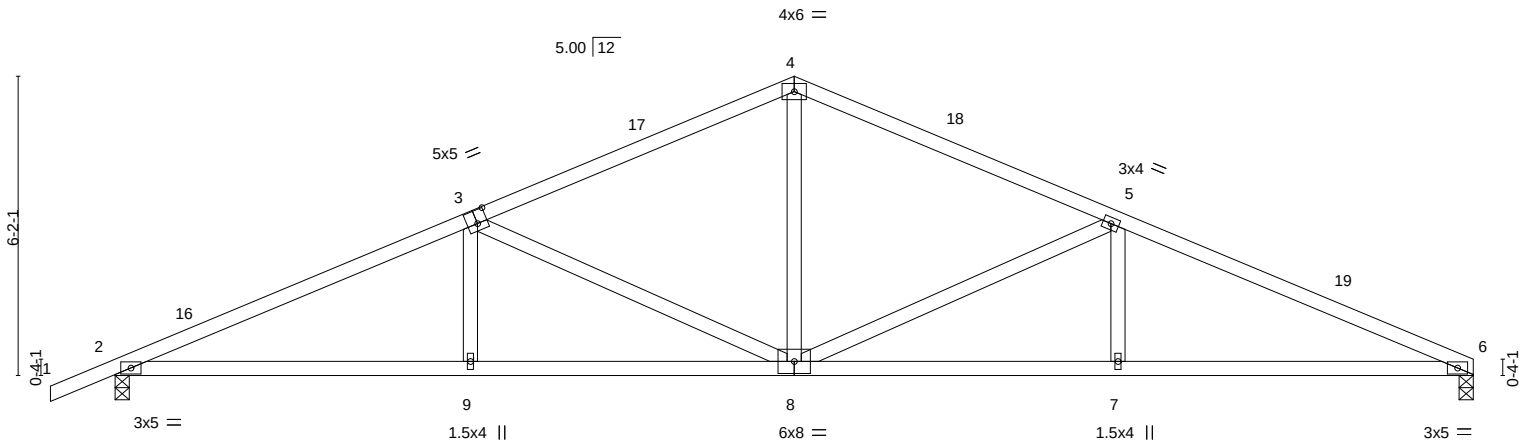
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	B02	Common	8	1	T28890186
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:09 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-U68ibD?ZD5uwhpQGa2323cFQQBJ9KalhNqCr7UyYqDW

-1-4-0 | 7-3-14 | 14-0-0 | 20-8-2 | 28-0-0
1-4-0 | 7-3-14 | 6-8-2 | 6-8-2 | 7-3-14

Scale = 1:47.5



7-3-14 | 14-0-0 | 20-8-2 | 28-0-0
7-3-14 | 6-8-2 | 6-8-2 | 7-3-14

Plate Offsets (X,Y)-- [3:0-2-8,0-3-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.83	Vert(LL)	-0.13	9-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.80	Vert(CT)	-0.28	7-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.09	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 127 lb	FT = 20%

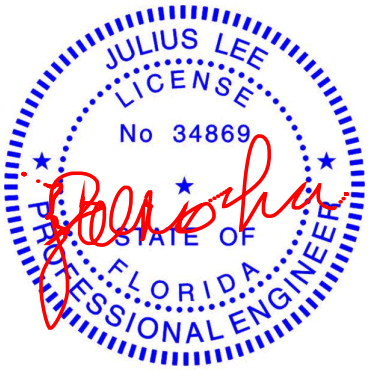
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=94(LC 11)
Max Uplift 2=-33(LC 12)
Max Grav 6=1118(LC 1), 2=1202(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2238/82, 3-4=-1527/133, 4-5=-1558/142, 5-6=-2301/115
BOT CHORD 2-9=-24/1989, 8-9=-27/1983, 7-8=-46/2080, 6-7=-46/2080
WEBS 4-8=0/721, 5-8=-817/62, 5-7=0/326, 3-8=-697/33, 3-9=0/332

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 14-0-0, Exterior(2R) 14-0-0 to 17-0-0, Interior(1) 17-0-0 to 28-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	B03	Half Hip	1	1	T28890187
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:11 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-QVGT0v0qli8dw7ZfhS6W81KlT_1woWh_r7hyBNyYqDU

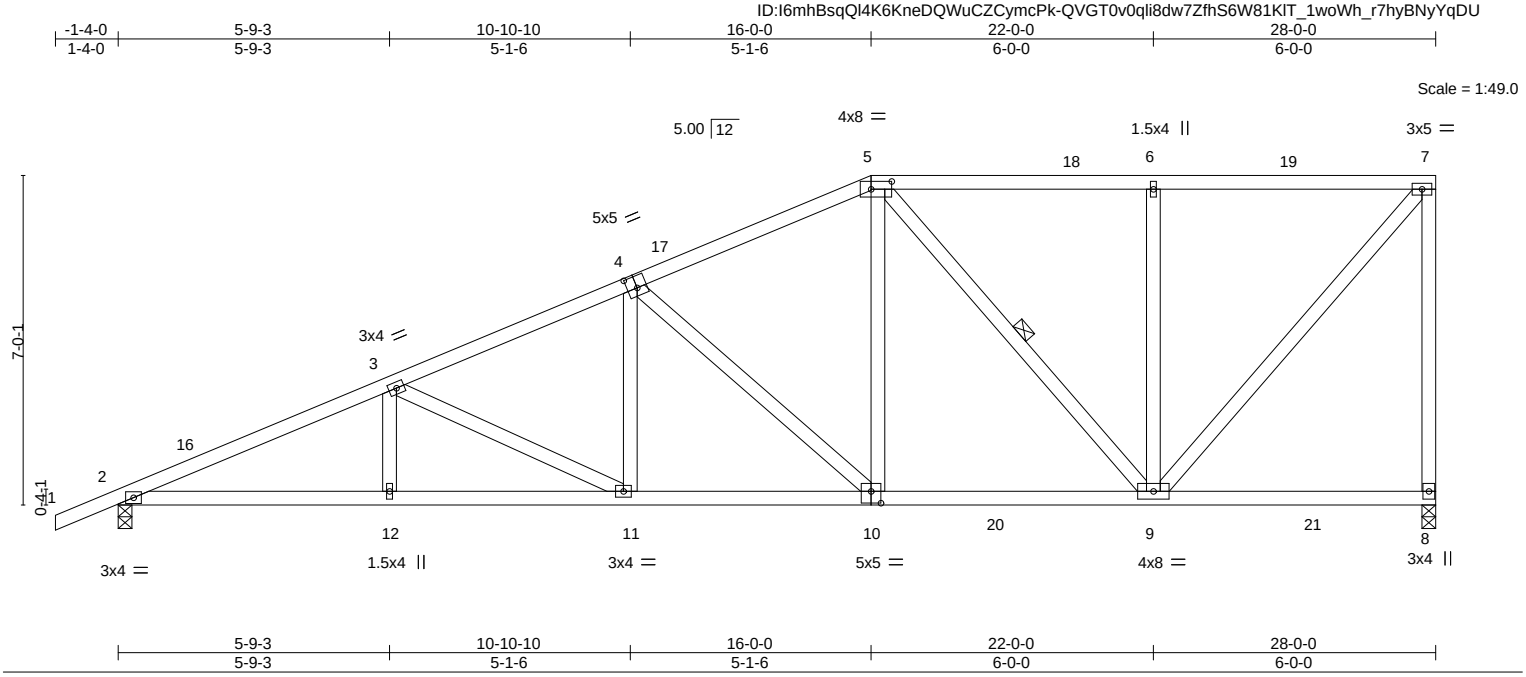


Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [5:0-5-4,0-2-0], [10:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.93	Vert(LL)	-0.12	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.65	Vert(CT)	-0.22	10-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 169 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-9

REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=209(LC 11)
Max Uplift 8=-2(LC 12), 2=-30(LC 12)
Max Grav 8=1277(LC 17), 2=1320(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2647/58, 3-4=-2042/74, 4-5=-1429/110, 5-6=-907/106, 6-7=-907/106, 7-8=-1161/92
BOT CHORD 2-12=-218/2475, 11-12=-218/2475, 10-11=-172/1866, 9-10=-146/1327
WEBS 3-11=-664/52, 4-11=0/486, 4-10=-732/36, 5-10=0/677, 5-9=-589/72, 6-9=-394/96, 7-9=-74/1374

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 16-0-0, Exterior(2R) 16-0-0 to 20-2-15, Interior(1) 20-2-15 to 27-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	B04	Half Hip	1	1	T28890188
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:12 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-uhqrDF1SW0GUYH8rFAdlhEt1aONcXwS73nRVjpyYqDT

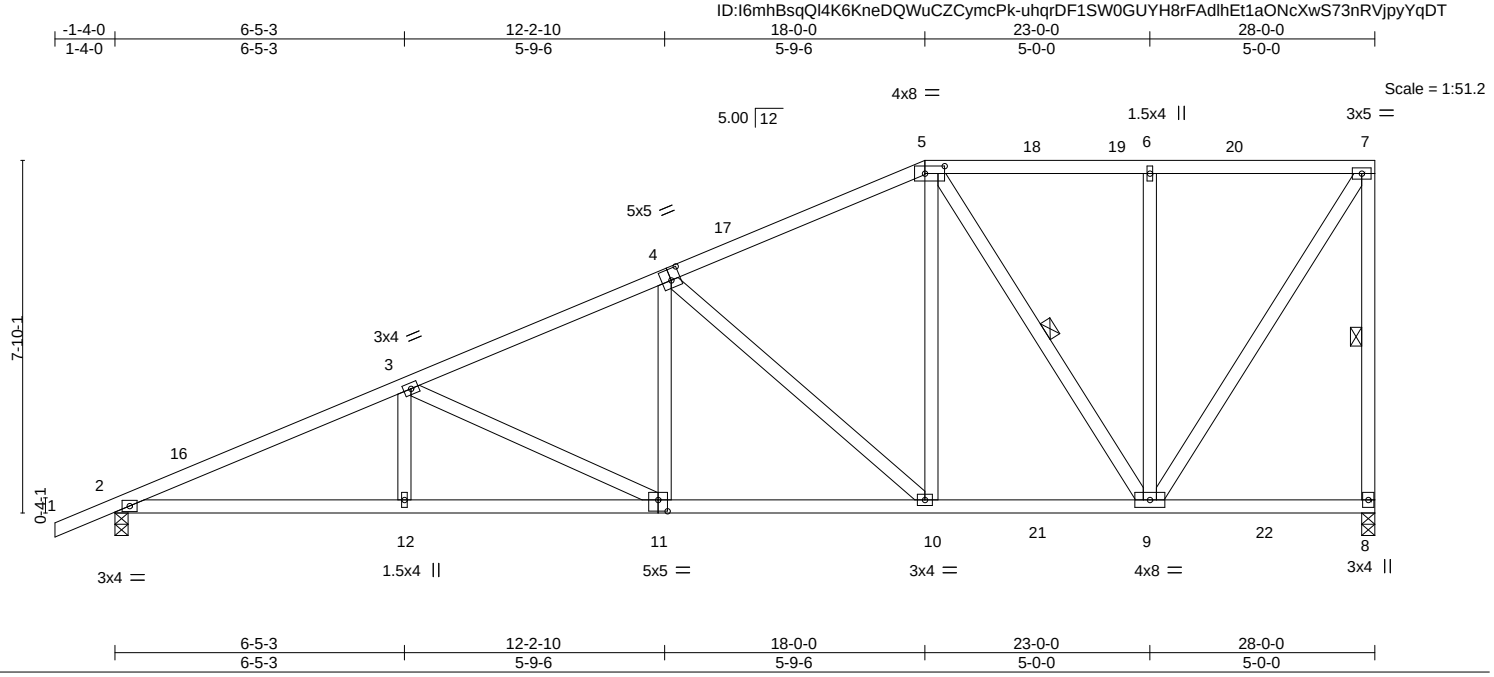


Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [5:0-5-4,0-2-0], [11:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.46	Vert(LL)	-0.13	11-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.69	Vert(CT)	-0.26	10-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 177 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-8, 5-9

REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=235(LC 11)
Max Uplift 8=-3(LC 12), 2=-29(LC 12)
Max Grav 8=1282(LC 17), 2=1317(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2606/55, 3-4=-1885/83, 4-5=-1201/108, 5-6=-698/114, 6-7=-698/114, 7-8=-1174/95
BOT CHORD 2-12=-222/2442, 11-12=-222/2442, 10-11=-181/1705, 9-10=-137/1131
WEBS 3-12=0/274, 3-11=-792/48, 4-11=0/508, 4-10=-786/57, 5-10=0/770, 5-9=-751/69, 6-9=-313/83, 7-9=-82/1271

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 18-0-0, Exterior(2R) 18-0-0 to 22-2-15, Interior(1) 22-2-15 to 27-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	B05	Half Hip	1	1	T28890189
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:13 2022 Page 1
ID:l6mhBsqQl4K6KneDQWuCZCymcPk-MuNDRb24HKOLARj1pt8_DSQ7NogYGNVHIRA2GFyYqDS

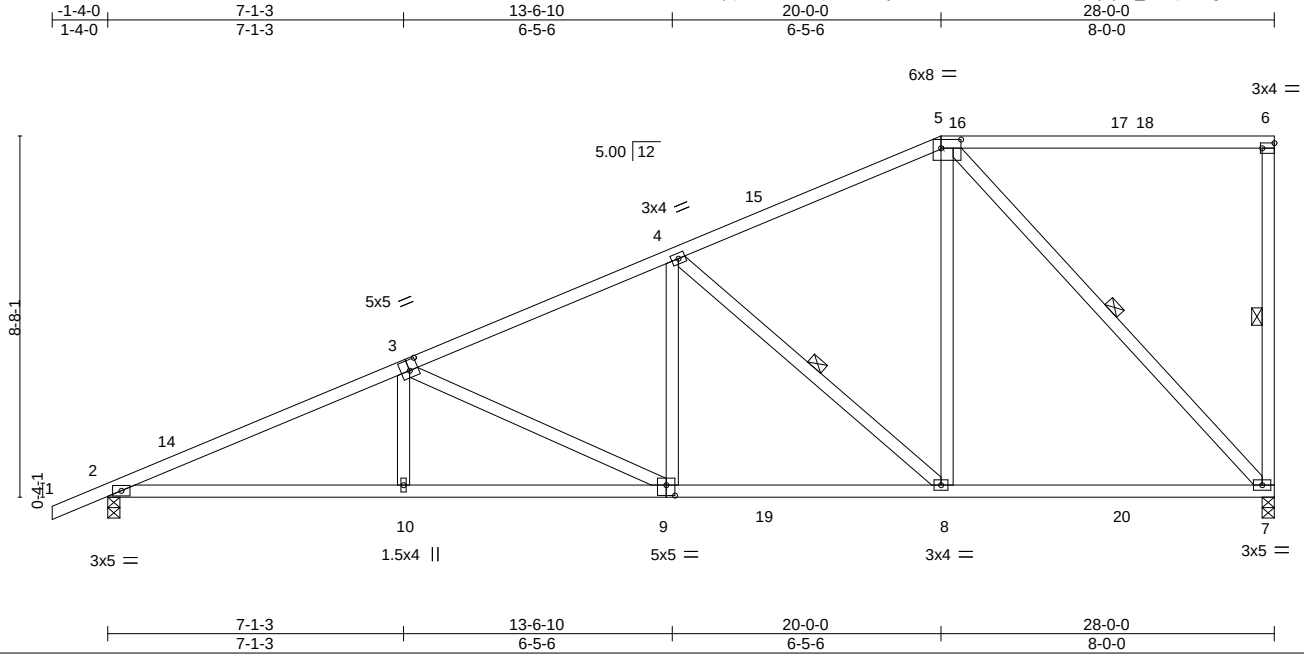


Plate Offsets (X,Y)-- [3:0-2-8,0-3-0], [5:0-5-12,0-2-8], [6:Edge,0-1-8], [9:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.77	Vert(LL)	-0.15	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.83	Vert(CT)	-0.26	10-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 163 lb	FT = 20%

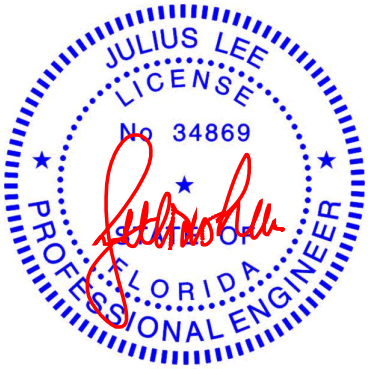
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-7, 4-8, 5-7

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=260(LC 11)
Max Uplift 7=-4(LC 12), 2=-28(LC 12)
Max Grav 7=1301(LC 17), 2=1334(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2533/32, 3-4=-1787/93, 4-5=-1039/115
BOT CHORD 2-10=-201/2361, 9-10=-203/2353, 8-9=-193/1663, 7-8=-129/961
WEBS 3-10=0/316, 3-9=-752/13, 4-9=0/522, 4-8=-948/83, 5-8=0/976, 5-7=-1341/99

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 20-0-0, Exterior(2R) 20-0-0 to 24-2-15, Interior(1) 24-2-15 to 27-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

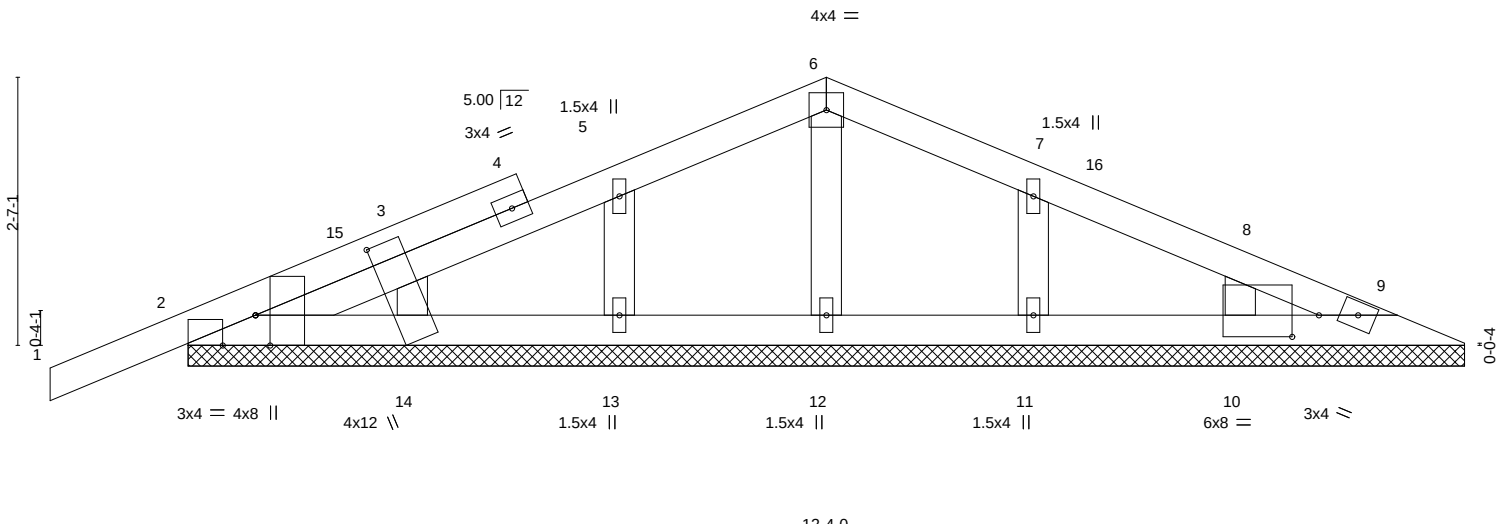
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	C01GE	Common Supported Gable	1	1	T28890190
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:14 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-q4xbex3i2dWCobIEMbfEmfyTVCDH?0dQX5wcoiyYqDR

-1-4-0 1-4-0 | 6-2-0 6-2-0 | 12-4-0 6-2-0

Scale = 1:22.3



12-4-0
12-4-0

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-3-13,Edge], [10:0-3-2,0-2-8], [14:0-2-1,1-2-13]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.11	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 51 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 12-4-0.
(lb) - Max Horz 2=39(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 13, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 2, 9, 12, 13, 14, 11, 10

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Corner(3E) -1-4-0 to 1-8-0, Exterior(2N) 1-8-0 to 6-2-0, Corner(3R) 6-2-0 to 9-2-0, Exterior(2N) 9-2-0 to 11-7-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 13, 11, 10.

Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

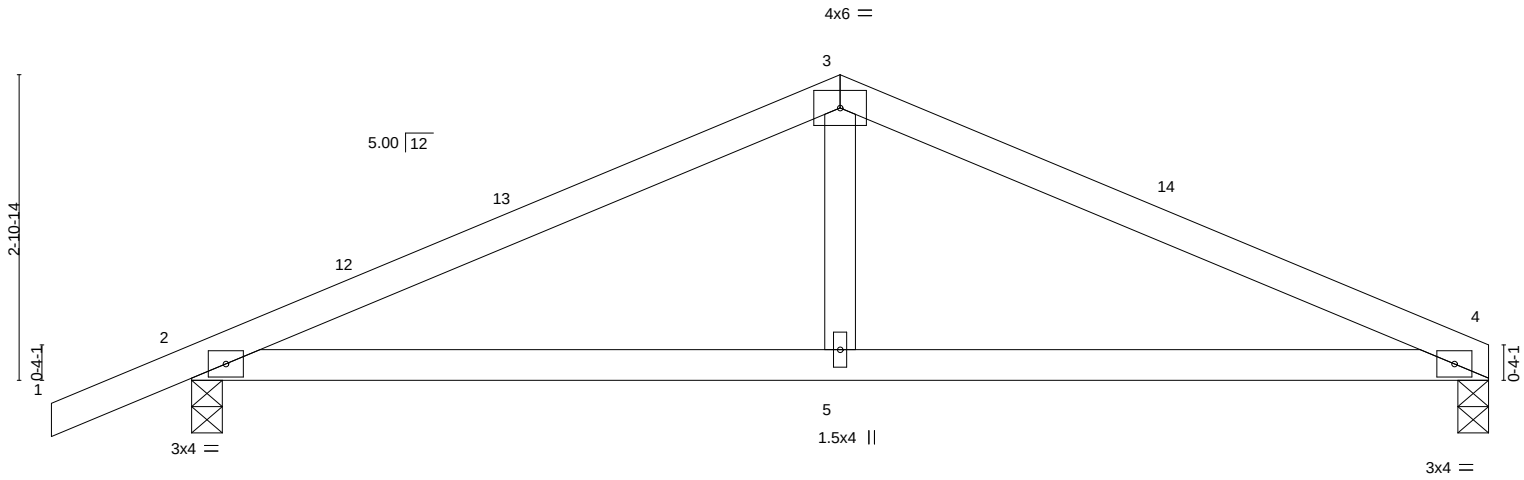
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	C02	Common	2	1	T28890191
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:16 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-mT3M3c4zaFmw1uScU0hir41ln?oyTwNj_PPjtayYqDP

-1-4-0 / 1-4-0 | 6-2-0 / 6-2-0 | 12-4-0 / 6-2-0

Scale = 1:21.9



6-2-0 / 6-2-0 | 12-4-0 / 6-2-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.38	Vert(LL)	-0.05	5-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.40	Vert(CT)	-0.10	5-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 44 lb	FT = 20%

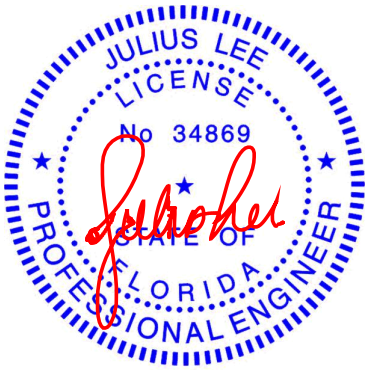
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 4=0-3-8, 2=0-3-8
Max Horz 2=44(LC 11)
Max Uplift 2=-35(LC 12)
Max Grav 4=489(LC 1), 2=578(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-780/178, 3-4=-779/187
BOT CHORD 2-5=-106/681, 4-5=-106/681
WEBS 3-5=0/279

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-2-0, Exterior(2R) 6-2-0 to 9-2-0, Interior(1) 9-2-0 to 12-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

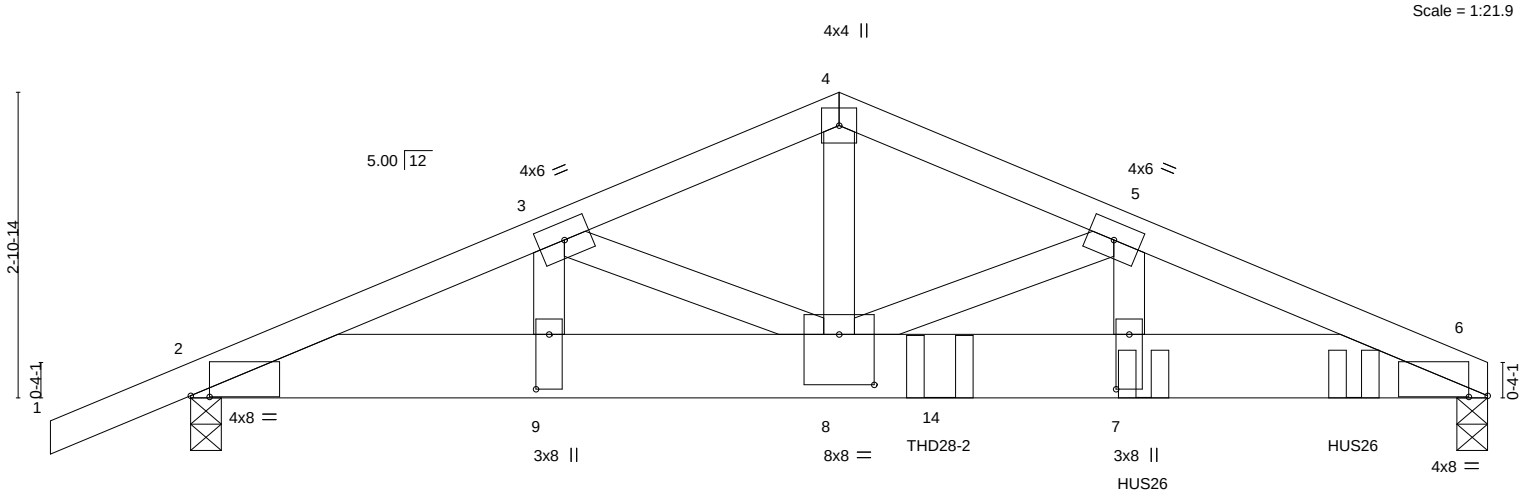
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	C03GIR	Common Girder	1	2	T28890192
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:17 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-FfdkGy5bKYunf21o2jDxOIateP8rCGktD38GP1yYqDO

-1-4-0 | 3-4-14 | 6-2-0 | 8-11-2 | 12-4-0
1-4-0 | 3-4-14 | 2-9-2 | 2-9-2 | 3-4-14

Scale = 1:21.9



3-4-14 | 6-2-0 | 8-11-2 | 12-4-0
3-4-14 | 2-9-2 | 2-9-2 | 3-4-14

Plate Offsets (X,Y)-- [2:0-2-2,0-0-2], [6:0-2-2,0-0-2], [7:0-6-4,0-1-8], [8:0-4-0,0-5-12], [9:0-6-4,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.56	Vert(LL)	-0.07	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.43	Vert(CT)	-0.15	7-8	>995	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 148 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.2

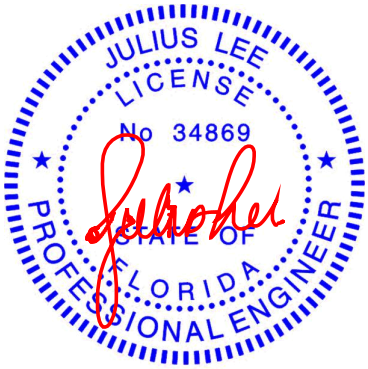
BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=43(LC 7)
Max Grav 6=4836(LC 1), 2=2539(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5523/0, 3-4=-6163/0, 4-5=-6155/0, 5-6=-9369/0
BOT CHORD 2-9=0/5058, 8-9=0/5058, 7-8=0/8614, 6-7=0/8614
WEBS 4-8=0/4466, 5-8=-3262/0, 5-7=0/2576, 3-8=0/799, 3-9=-602/0

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-3-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Use MiTek THD28-2 (With 28-16d nails into Girder & 16-10d nails into Truss) or equivalent at 7-1-8 from the left end to connect truss(es) to front face of bottom chord.
9) Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-0-12 from the left end to 11-0-12 to connect truss(es) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-60, 4-6=-60, 2-6=-20



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

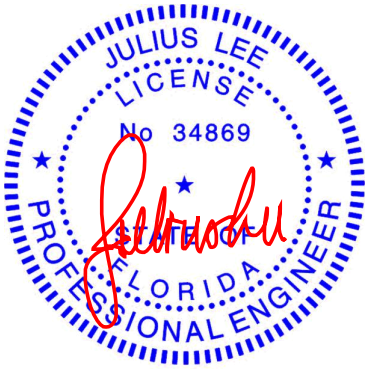
Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 7=-1493(F) 11=-1493(F) 14=-3337(F)



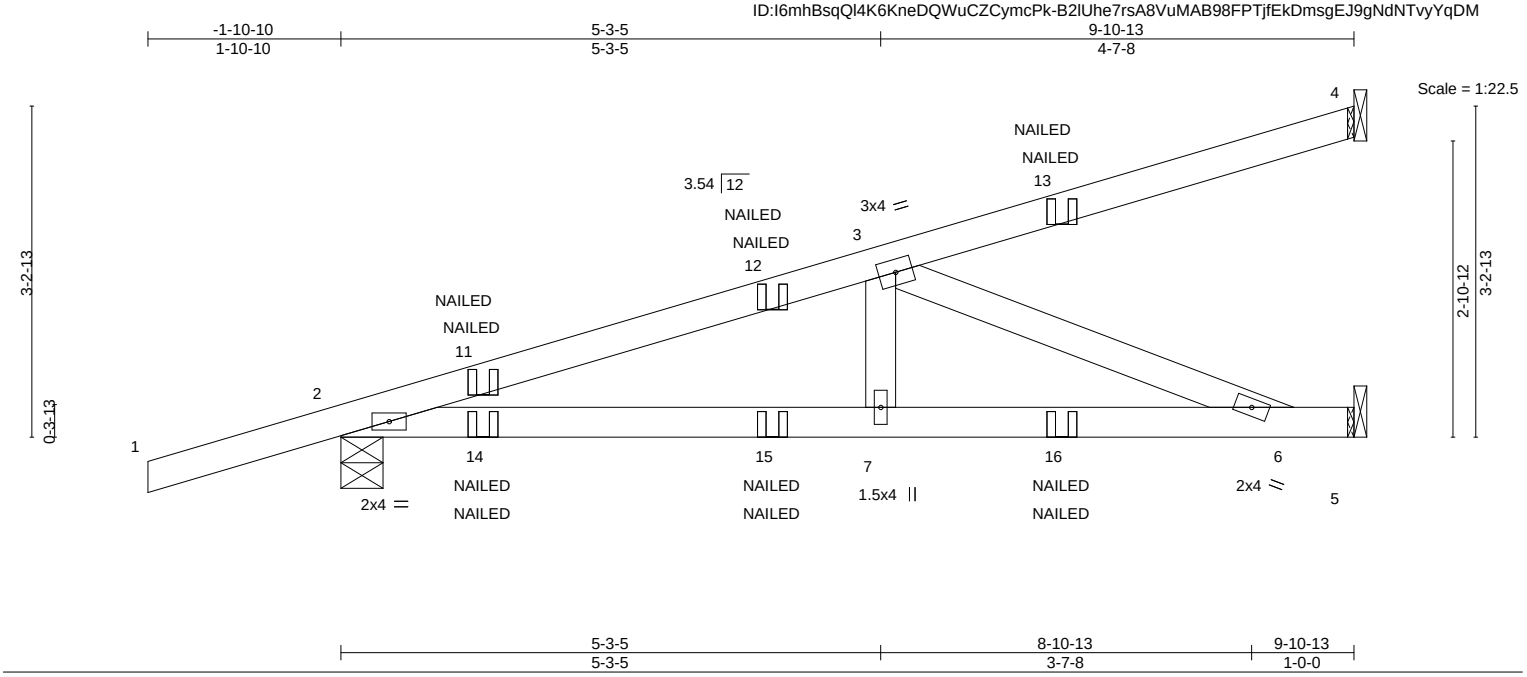
Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017

Date:

September 29,2022

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	CJ01	Diagonal Hip Girder	2	1	T28890193
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:19 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-B2lUhe7rsA8VuMAB98FPTjfEkDmsgEJ9gNdNTvyYqDM



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.46	Vert(LL)	-0.05	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.65	Vert(CT)	-0.11	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 41 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

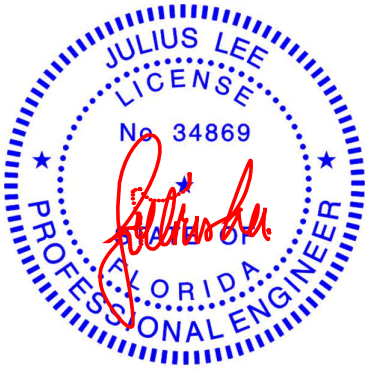
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-4-15, 5=Mechanical
Max Horz 2=90(LC 8)
Max Uplift 4=-30(LC 8), 2=-68(LC 8)
Max Grav 4=143(LC 1), 2=417(LC 1), 5=326(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-850/0
BOT CHORD 2-7=-15/787, 6-7=-15/787
WEBS 3-7=0/306, 3-6=-846/16

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-60, 5-8=-20
Concentrated Loads (lb)
Vert: 11=117(F=58, B=58) 13=-84(F=-42, B=-42) 14=57(F=28, B=28) 15=-12(F=-6, B=-6) 16=-63(F=-32, B=-32)



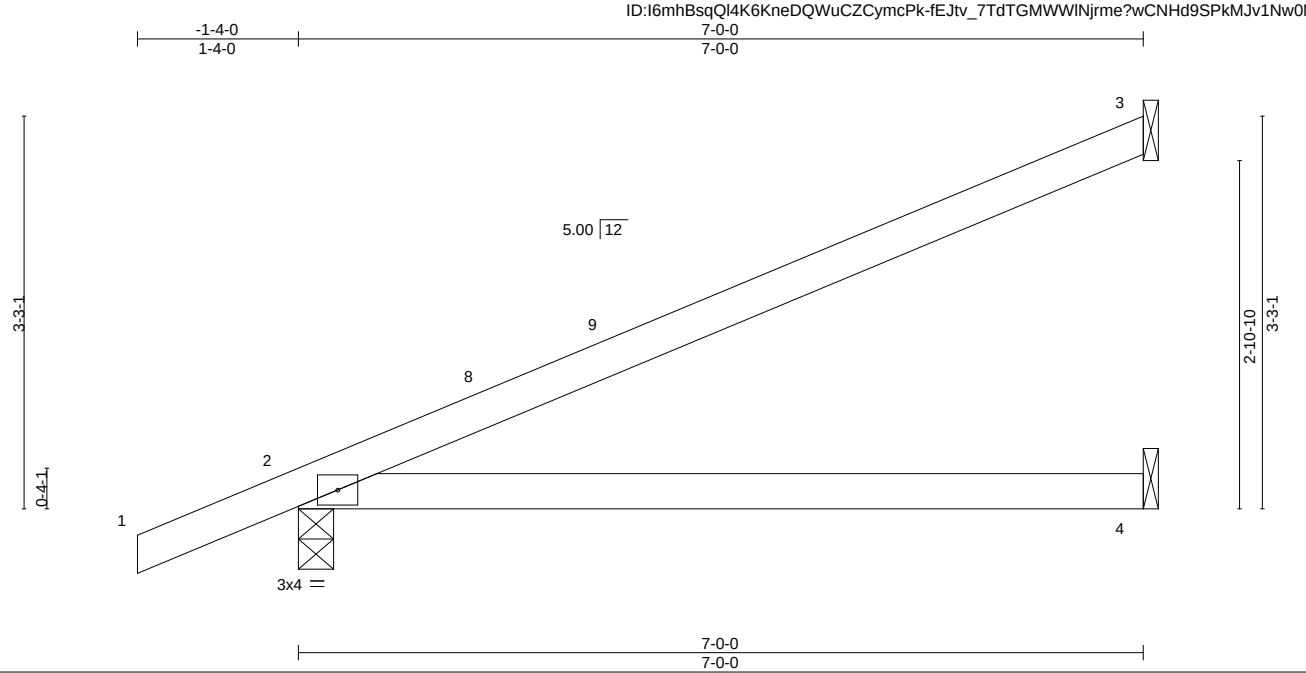
Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	J1	Jack-Open	25	1	T28890194
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:20 2022 Page 1
ID:l6mhBsqQl4K6KneDQWuCZCymcPk-fEJtv_7TdTGMWWlNjrme?wCNHd9SPkMJv1Nw0MyYqDL



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.60	Vert(LL)	-0.08	4-7	>992	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.50	Vert(CT)	-0.21	4-7	>401	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 24 lb	FT = 20%

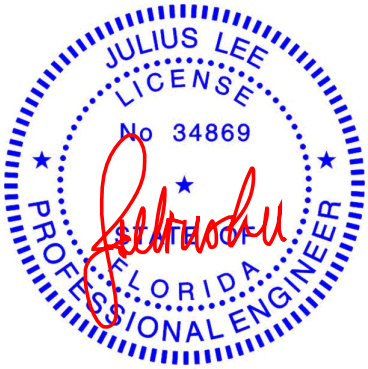
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=90(LC 12)
Max Uplift 3=-39(LC 12), 2=-22(LC 12)
Max Grav 3=186(LC 1), 2=365(LC 1), 4=124(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	J2	Jack-Open	4	1	T28890195 Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:21 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-7QsF6K85OnPD7fKaGZHtY8ld?0Zn8BcS8h6UYoyYqDK

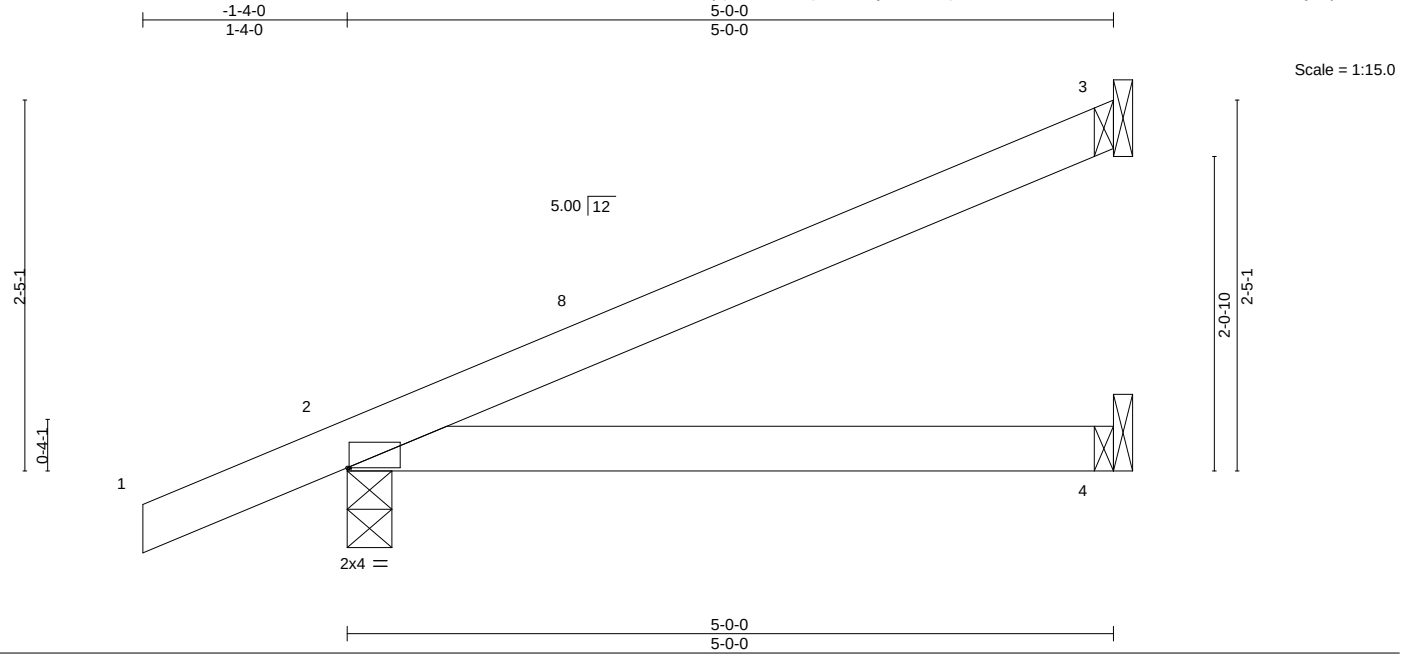


Plate Offsets (X,Y)-- [2:0-0-2,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.28	Vert(LL)	0.03	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.23	Vert(CT)	-0.05	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							Weight: 18 lb	FT = 20%

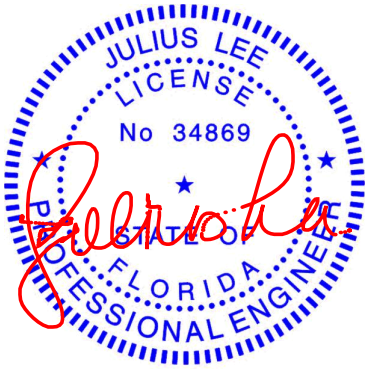
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=70(LC 12)
Max Uplift 3=-25(LC 12), 2=-28(LC 12)
Max Grav 3=127(LC 1), 2=288(LC 1), 4=88(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 4-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



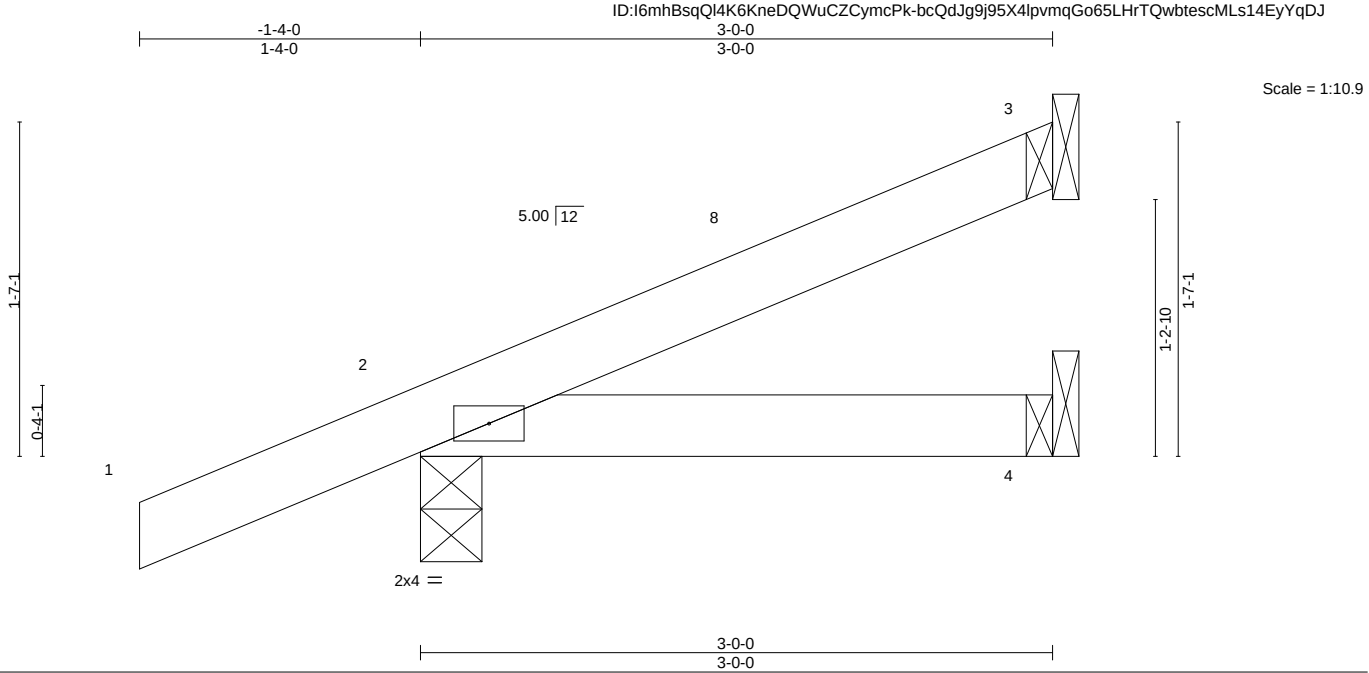
Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	J3	Jack-Open	4	1	T28890196
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:22 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-bcQdJg9j95X4lpvmqGo65LHrTQwbtescMLs14EyYqDJ



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.11	Vert(LL)	-0.00	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.07	Vert(CT)	-0.01	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 12 lb	FT = 20%

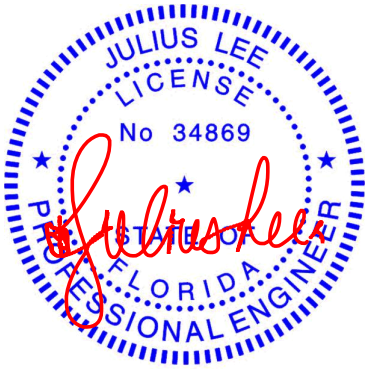
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=50(LC 12)
Max Uplift 3=-11(LC 12), 2=-36(LC 12)
Max Grav 3=67(LC 1), 2=216(LC 1), 4=50(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 2-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.



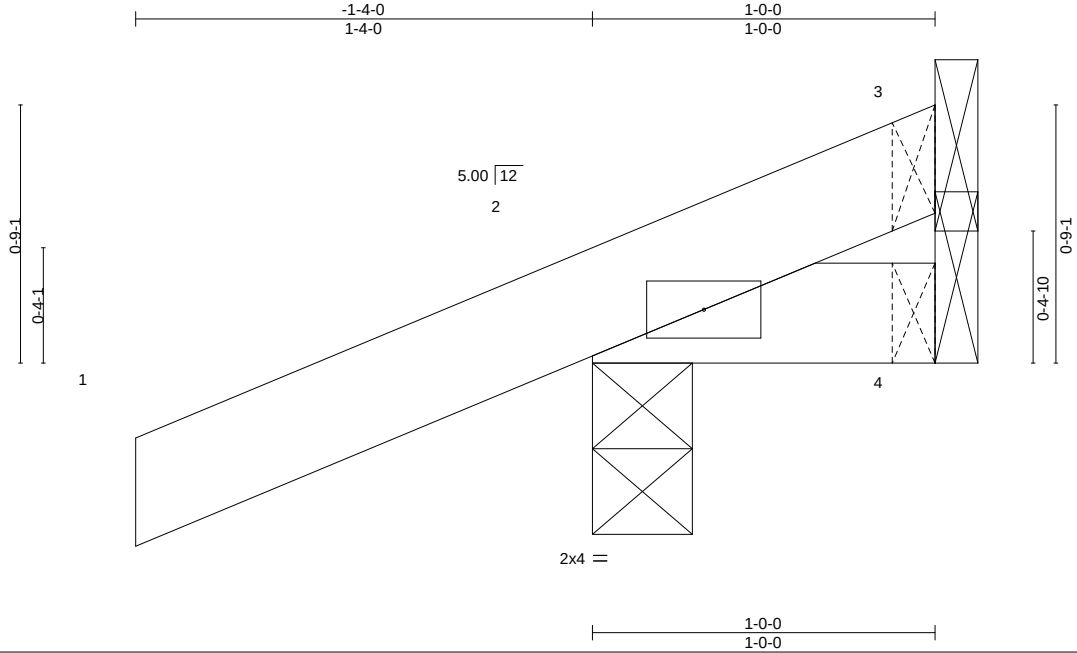
Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	J4	Jack-Open	4	1	T28890197
					Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:23 2022 Page 1
ID:I6mhBsqQl4K6KneDQWuCZCymcPk-3p_?X?AMwOfxNzUyO_JLdZq?DqHic55lb?bacgyYqDI



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.11	Vert(LL)	0.00	5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.01	Vert(CT)	0.00	5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 5 lb	FT = 20%

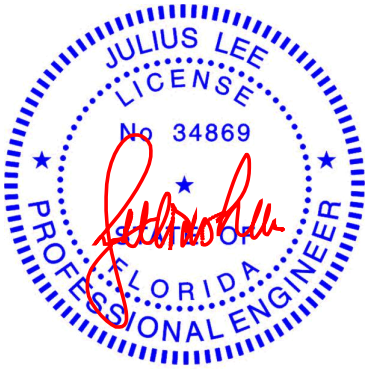
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=30(LC 12)
Max Uplift 2=-58(LC 12), 4=-14(LC 1)
Max Grav 3=8(LC 12), 2=174(LC 1), 4=17(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



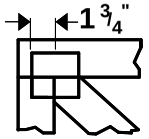
Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 29,2022

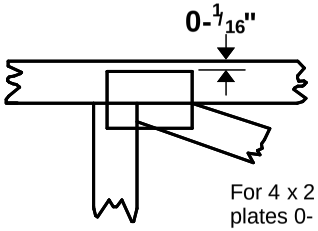
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

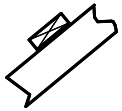
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

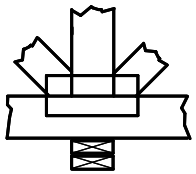
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

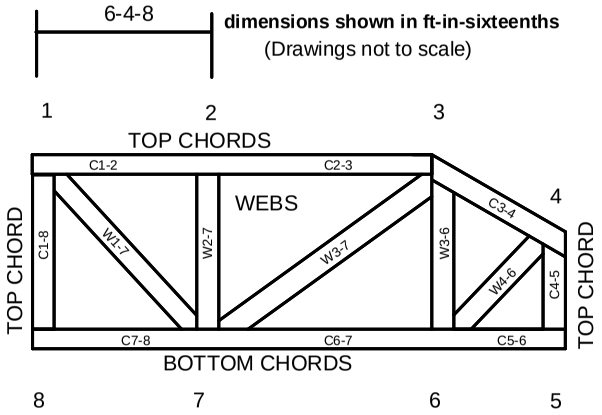


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.

21.The design does not take into account any dynamic or other loads other than those expressly stated.